

Received: April 5, 2021

Accepted: June 14, 2021

<http://dergipark.org.tr/rep>

e-ISSN: 2602-3733

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June 2021 • 5(1) • 53-70

*Research Article*

Published: 06.30.2021

## An Explanatory Model of Test Anxiety: Psychological Resilience, Abuse, and Neglect

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### Abstract

The main objective of this study is to investigate the relationship between middle school students' test anxiety and their psychological resilience, neglect, and abuse experiences based on a model. Under this main objective, the sub-objectives of the study include determining the relationship between the nature of test anxiety and childhood experiences, identifying the mediating characteristics of psychological resilience in reducing the impact of childhood traumas, and examining the effect of psychological resilience on test anxiety. The study, which used the correlational survey model, was conducted with 433 middle school students. The Westside Test Anxiety Scale, the Resiliency Scale for Children and Adolescents, and the Childhood Trauma Questionnaire were employed as data collection tools in the study. The AMOS software package was used for the analysis of the hypothesis test model, and the relationships between variables were examined with path analysis. As a result of the study, the goodness of fit coefficients of the conceptual model analyzed indicated that the model was valid. Emotional neglect and emotional abuse, which are sub-dimensions of the trauma scale, were significant and negative predictors of psychological resilience. In addition, the results of the bootstrap analysis showed that psychological resilience had a full mediating role in the relationship between test anxiety and emotional abuse and neglect. According to the findings of the study, it was concluded that emotional abuse and neglect, which are the sub-dimensions of childhood trauma, were factors that negatively affected the psychological resilience of students and that the high psychological resilience levels of the students reduced test anxiety. Also, psychological resilience was found to be an important mediator in reducing the effect of the consequences of childhood trauma on test anxiety.

### Key Words

Abuse • Neglect • Psychological resilience • Test anxiety

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**Citation:** Yakıcı, H. B., & Kandemir, M. (2021). An explanatory model of test anxiety: Psychological resilience, abuse, and neglect. *Research on Education and Psychology (REP)*, 5(1), 53-70.

There are some universal factors that affect an individual's learning and achievement potential in the past and present and will continue to affect them in the future. One of these factors that significantly affects school life and draws researchers' attention is probably anxiety. [Spielberger\(1972\)](#), who had important studies on anxiety, described anxiety as a negative, emotional, and distinct response, such as sadness, restlessness, and tension caused by factors that lead to stress. [Zeidnerand Matthews \(2005\)](#), on the other hand, defined anxiety as the intense responses of the individual in the cognitive, affective, and physical sense to the perceived stressor. According to the literature, there are two basic types of anxiety: "state and trait" ([Beck & Emery, 2005](#); [Spielberger, 1975, 1980](#)). Some individuals are consistently more anxious than other individuals, and this anxiety is defined as "trait anxiety" ([Spielberger, 1975](#)). [Pintrich and Schunk \(1996\)](#) evaluated trait anxiety as a personality trait rather than situation-specific phenomenon. According to [Spielberger \(1975\)](#), another anxiety that is experienced in certain situations and that many people in similar situations may experience is "state anxiety". Although the types of state and trait anxiety differ from each other, individuals with high trait anxiety are reported to experience state anxiety more ([Spielberger, 1975](#)). They experience this anxiety as test anxiety in cases when their performance expectations are at the highest level in their school life for the first time in an evident and concrete way. According to [Spielberger and Vogg \(1995\)](#), the most common test anxiety in the state anxiety group is an internal state that is experienced in a formal evaluation process and includes cognitive, affective, and behavioral properties that prevent the individual from maximizing their performance ([Spielberger, 1995](#)).

Test anxiety, which is an important phenomenon that must be dealt with for the academic and learning life of the student, is quite common. For example, [Cassady \(2010\)](#) determined that approximately 40% of the students experienced test anxiety. In a study conducted by [Gençdoğan \(2010\)](#), 66% of the students were found to experience a high level of test anxiety. In another study conducted by [Kavakci, Semiz, Kartal, Dikici, and Kuğu \(2014\)](#), a high level of test anxiety was found in 48% of the students. Test anxiety, which is widely observed in studies, can be said to be a barrier to students' development of a successful profile ([Cassady, 2004](#)). [Cassady \(2004\)](#) stated that students who experienced high levels of test anxiety did not prepare for exams adequately, could not include their cognitive competencies in the process, and as a result of these, experienced an intensely increased anxiety during tests. [Hembree \(1988\)](#) reported that a high level of test anxiety experienced by the student affected the success in each course at different levels. Similarly, [Putwain, Woods, and Symes \(2010\)](#) found that test anxiety negatively affected success. [Spielberger \(1995\)](#) stated that students perceived this situation as a problem and resorted to psychosocial support to overcome it. On the other hand, [Kandemir \(2012\)](#) stated that with the increase in test anxiety, students increasingly tended to procrastinate their duties in a dysfunctional way to get rid of these stressful situations. Test anxiety, which can be experienced at every stage of education, becomes apparent in adolescence ([Zeidner, 1996](#)). It can be said that the emotional burden and significance of the tests starting to increase especially towards the end of the secondary school years is important in revealing the anxiety experienced. Eighth grade (middle school) students in Turkey take the High School Entrance Test (LGS) at the end of the year and can choose a school that suits them according to their test score. However, during this period, students may have to both deal with problems of adolescence and cope with the expectations of the school and the family about the test and the high pressure related to it. They may experience test anxiety from the beginning of the middle school due to this test ([Aydm & Bulgan, 2017](#)). It is therefore important to understand the causes of anxiety to help students to cope with it.

The literature shows that test anxiety is associated with many factors, such as social expectation, study habits, personality traits, self, and self-efficacy beliefs (Elliot & McGregor, 1999; Kandemir, 2013). Psychological resilience, which is an important domain of positive psychology (Seligman & Csikszentmihalyi, 2000) that take potentials, strengths, and positive characteristics of individuals as a base, draws attention to the reasons for test anxiety (Jamshidi et al., 2017; Kaya et al., 2016). Psychological resilience comes from the Latin root "resiliens" and refers to the elasticity of a substance and its ability to easily return to its original. The positive psychology approach expresses psychological resilience as the strength of individuals who can recover and return to their normal lives (Doğan, 2015). Mangham, McGrath, Reid, and Stewart (1999) defined psychological resilience as the ability of individuals and systems (family, group, society) to cope effectively with significant adverse situations. Leipold and Greve (2009) and Murphy (1987), on the other hand, saw resilience as a bridge between development and coping. Similarly, Öğülmüş (2001) evaluated it as the capacity to become successful despite adversities (Öğülmüş, 2001).

The diversity of definitions of psychological resilience has also been manifested in the dimensions of the concept. There are three dimensions of the concept of psychological resilience: risk or difficulty, protective factors, and positive adaptation (Gizir, 2007). Risk factors are known as negative factors in a person's life as individual, familial, or environmental risk factors (Armstrong et al., 2005; Kararmak, 2006). Protective factors, on the other hand, can be intrinsic and extrinsic, and they are considered as factors that reduce the negative impact that occurs in dangerous situations. Protective factors can be individual, family-related, and outside the family (Kararmak, 2006). Positive adaptation is the ability to cope with dangerous situations by using protective factors that one has (Ülker-Tümlü&Recepoğlu, 2013). Positive adaptation factors include academic success, social competence, positive social relationship, and psychosocial adaptation (Gizir, 2007).

There are some studies on the relationship between resilience, which has different dimensions and grants the potential to recover even in case of failure, and test anxiety (Jamshidi et al., 2017; Kaya et al., 2016). In the study conducted with 344 middle school students, a positive relationship was found between achievement anxiety and psychological resilience (Kaya et al., 2016). Accordingly, it can be concluded that as psychological resilience increases, test anxiety decreases (Totan et al., 2019). In addition to these explanations, Hjemdal, Vogel, Solem, Hagen, and Stiles (2011) stated that individuals have coping skills that they can use in risky and negative situations, that is, their thoughts about psychological resilience will help them experience anxiety and depression less. Psychological resilience can be a protective factor on the individual to bring the test anxiety to a normal level. It has been seen in the literature that childhood traumatic experiences, like psychological resilience, are a variable that can help explain anxiety (Demir et al., 2020).

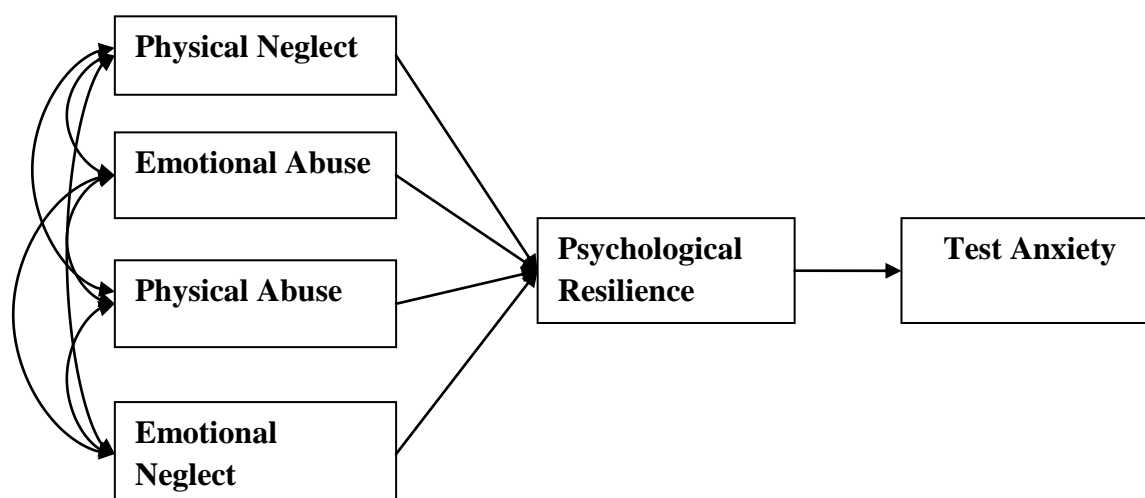
Childhood traumatic experiences, which is an important variable in this study that focuses on explaining test anxiety, is a comprehensive term that includes many negative experiences. The traumatic experiences that the child can experience in the early period and cause negative consequences may include death, natural disasters, and pandemic diseases, as well as violence, abuse, and neglect (Şar et al., 2012). Childhood traumas are examined in two sub-domains: neglect and abuse. According to the definition made by the World Health Organization in 1985, behaviors that affect the child's health negatively in physical, psychological, and social terms and are exerted intentionally or unintentionally by an adult, society, or peers of the child, are considered as abuse and neglect (WHO, 1985). According to the Turkish Language Association (TLA), abuse is defined as the

exploitation of a person's goodwill, and neglect, on the other hand, as failing to give the proper attention or evading. Whether the behavior of parents towards their children is neglect or abuse depends on the values that society attaches to the child, beliefs, the method of punishment and discipline towards the child, and the type of behaviors that are considered unacceptable towards the child (Zeytinoglu, 1991). Children who have been exposed to neglect and abuse during childhood are greatly likely to use these behaviors as a problem-solving method in their future lives (Güler et al., 2002). Childhood abuse and neglect can cause mental problems that can be seen in adulthood and are seen as an important risk factor in the emergence of anxiety symptoms and disorders (Gibb et al., 2007; Spinhoven et al., 2010). In a study conducted by Öztep (2010), the anxiety scores of adolescents who were exposed to emotional abuse were reported to be higher than those who were not. In the study reported by Spinhoven et al. (2010), it was reported that traumatic experiences in early childhood were a profound cause of problems such as anxiety and depression.

In the study, the relationships between psychological resilience, which is used to explain test anxiety, and childhood traumatic experiences draw attention in the related literature (Bindal, 2018; Masten & Narayan, 2012; Masten & Osofsky, 2010; Reuther & Osofsky, 2013). In their study, Sapienza and Masten (2011) reported that children with high levels of psychological resilience coped more easily with childhood traumas and were less affected by their traumas. In a different study reported by Bindal (2018), a negative relationship was found between psychological resilience and emotional abuse, emotional neglect, and physical neglect, but there was no significant relationship with the physical abuse dimension. In a study conducted on prospective teachers, it was observed that individuals who experienced trauma in childhood had significantly lower psychological resilience compared to those who did not (Balci, 2018). In a study conducted with adults, a significant negative relationship was found between emotional neglect, physical neglect, emotional abuse, and physical abuse and psychological resilience (Aydın, 2018).

In general, the examination of related studies indicates that there is a relationship between psychological resilience, neglect, and abuse, which are predictor variables of test anxiety. However, no studies that investigate the variables of test anxiety, psychological resilience, and childhood trauma together have been found. Nor have studies into the mediating function of psychological resilience in reducing the effect of traumatic experiences in childhood on test anxiety been encountered. The main purpose of this study is to examine the predictive power of psychological resilience, neglect, and abuse on test anxiety. Accordingly, the researchers aim to determine the relationship between the nature of test anxiety and childhood experiences and to identify the mediation characteristics of psychological resilience in reducing the effects of childhood traumas. Another aim of the study is to examine the effect of psychological resilience on test anxiety. In this context, the conceptual model created by examining the literature on research variables is given below.

Figure 1

*Conceptual Model*

At the same time, students experience a national-scale achievement test in their school life for the first time in the 8th grade (middle school). Therefore, this may be the first time that they experience test and performance anxiety intensely. For this reason, this research, which was conducted at the middle school level, can make important contributions to the understanding of the nature and causes of anxiety experienced by students

### Method

The methods part of the research presents information about the research model, study group, data collection tools, data collection process, and data analysis.

#### Research Model

This study used the correlational survey model, which is a subtype of quantitative research design. Quantitative research design aims to collect data to determine certain characteristics of a certain group of individuals (Büyükoztürk et al., 2018). The correlational survey model is defined as a research method that aims to determine the existence and/or degree of variance between two or more variables (Cohen et al., 2000). In the study, a conceptual model was proposed to determine the extent to which students' childhood traumas and psychological resilience levels together predicted test anxiety, and the results of the analysis of the proposed model in the final model were given. At the same time, the study aimed to determine how test anxiety was predicted along with the direct and indirect relationships of the variables. When considered in the context of these explanations, it can be said that the model of the research is the correlational survey model.

#### Study Group

The study data were collected from a total of 433 (305 girls, 128 boys) students. The study group consisted of 5th (24), 6th (67), 7th (22), and 8th-grade (320) middle school students. Participants' ages ranged from 10 to 16 (mean age=12.83). The number of siblings of the participants varied between 1 and 10 (mean=3). Their grade point average ranged between 30 and 99 (mean = 77.5). The number of days that the participants were absent

from school varied between 0 and 18 (mean = 2.6). Participants were found to study between 0 and 7 hours a day (mean = 2.3). While 226 (52.2%) of them had a daily study plan, 207 (47.8) did not have a study schedule.

### **Measurement Tools**

#### **The Westside Test Anxiety Scale**

This scale was developed by Driscoll (2007) to measure the efficiency of the programs for test anxiety and to determine the test anxiety level of individuals. It consists of a single factor and 10 items. It was adapted to Turkish culture by Totan and Yavuz (2009). The adapted version consists of 11 items. It uses a 5-point Likert-type scale. Scores that can be obtained from the scale range between 11 and 55. There are no reversed items on the scale. The adapted version of the scale consists of a single factor, too. The construct validity of the scale was established by explanatory factor analysis and confirmatory factor analysis. Cronbach's alpha internal consistency coefficient of the scale was .89 and was found satisfactory. In the descriptive factor analysis, the explained variance of the scale was found as 46.05%. The scale has a one-dimensional structure with factor loadings ranging between .32 and .78. The test-retest validity of the scale was found as .57, and the item-total correlations varied between .47 and .71. Cronbach's alpha value in this study was found as .79. When the studies were examined, it was seen that the scale was applied on secondary school students (Başol, Zabun, 2014; Totan, 2018).

#### **The Childhood Trauma Questionnaire**

The original form of the Childhood Trauma Questionnaire was developed by Bernstein, Fink, Handelsman, Foote, Lovejoy, and Wenzel (1994) and adapted to Turkish culture by Şar et al. (2012). The scale consists of 28 items and 5 sub-dimensions, namely, physical abuse, sexual abuse, emotional abuse, emotional neglect, and physical neglect. It uses a 5-point Likert-type scale. There are reversed items on the scale. Cronbach's alpha value, which demonstrates the internal consistency of the scales, was found as 0.93, and the Guttman split-half test coefficient was 0.97. The test-retest correlation coefficient of the total score of the scale was found to be 0.90 ( $p < .01$   $N = 48$ ). This study did not use the sexual abuse sub-dimension. Cronbach's alpha value for this research was found as .87. When the studies were examined, it was seen that the scale was applied on secondary school students (Bindal, 2018).

#### **The Child and Youth Resilience Measure**

This scale was developed by Liebenberg, Ungar, and Van de Vijver (2012). It has 28 items and 3 subscales. The short-form study of the scale was conducted by Liebenberg, Ungar, and LeBlanc (2013). As a result of two different studies, a 12-item structure was obtained. The scale was adapted to the Turkish Culture by Arslan (2015). The adapted version of the scale consists of 12 items and a single factor. It uses a 5-point Likert-type scale. Cronbach's alpha value of the scale was calculated as .91. Item-total correlation values varied between .43 and .65. Internal consistency coefficients of the subscales varied between .80 and .82. Cronbach's alpha value for this study was found as .85. The scale's study group has the same age as this study group.

#### **Data collection process and preparation of data for analysis**

Before the data collection process of the research was initiated, the proposal of the research and the data collection tools were presented to the Social and Human Sciences Ethics Committee of Kırıkkale University, and

the necessary legal approval of the research was obtained from this committee. Afterward, the data collection process was initiated.

Before collecting data from middle school students in the study, they were informed about the general objectives of the research, data collection tools, and the average duration of the implementation. It was observed that the research group completed filling out the scales within an average of 20 minutes. After the collected data were entered into the database of the IBM SPSS software package, some preliminary assessments were made to prepare the data for analysis. The frequency distributions of the research data were examined. Then, Mahalanobis distances of the data obtained from each psychological counselor were examined, and accordingly, data of 31 students showing a Mahalanobis result of greater than the value of chi-square as much as the number of independent variables used in the related hypothesis model to determine the significance value at the level of .01 were removed from the data analysis set. Skewness and kurtosis values were examined for the normality of the dependent variable for unidimensional and multidimensional cases before the regression analysis such as path analysis. It was found that skewness and kurtosis values were between  $\pm 1.0$  (Skewness = .053, Kurtosis = -.689). If the coefficients of skewness and kurtosis are in the range of  $\pm 1.0$ , the distribution can be accepted to be normal (George & Mallery, 2019).

### Findings

In this part of the study, middle school students' test anxiety was predicted using psychological resilience, abuse, and neglect variables within the scope of a model. Also, descriptive analyses of the variables, correlation analysis between variables, and the analysis results of the tested conceptual model were presented. First of all, descriptive results that were obtained from test anxiety, psychological resilience, and childhood trauma scales, and correlations between variables were examined. The results are shown in Table 1 below.

Table 1

#### *Results of The Correlation Analysis between Variables*

Variables	$\bar{X}$	Sd	1	2	3	4	5	6
1. Test Anxiety	2.92	.75	1					
2. Psychological Resilience	1.46	.70	-.27**	1				
3. Emotional Abuse	1.24	.70	.16**	-.40**	1			
4. Physical Abuse	1.87	.95	.10*	-.28**	.67**	1		
5. Emotional Neglect	1.32	.47	.13**	-.37**	.47**	.46**	1	
6. Physical Neglect	4.15	.68	.12*	-.33**	.40**	.50**	.64**	1

\* $p < .05$ , \*\* $p < .01$

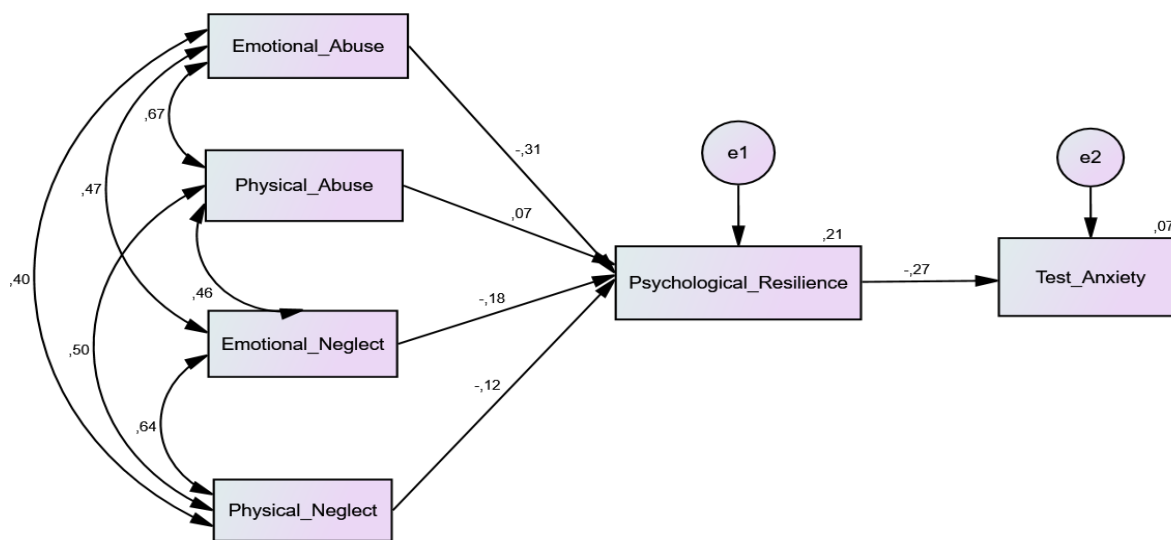
As seen in Table 1, there were significant relationships between test anxiety and related variables. Accordingly, the test anxiety of middle school students had a negative, low, significant correlation with psychological resilience ( $r = -.27$ ), a positive, low, significant correlation with emotional abuse ( $r = .16$ ), a positive, low, significant correlation with physical abuse ( $r = .10$ ), a positive, low, significant correlation with emotional neglect ( $r = .13$ ), and a positive, low, significant correlation with physical neglect ( $r = .12$ ). According to these results, it is possible to say that there were positive or negative significant relationships between the test



anxiety levels of middle school students and the predictor and mediator variables of the research and that the correlation competence required for the model test was achieved. Then, the process of testing the conceptual model was initiated. The results of the path analysis conducted to test the conceptual model are given in Figure 2 below.

Figure 2

*Results of The Analysis of The Model Created for Test Anxiety*

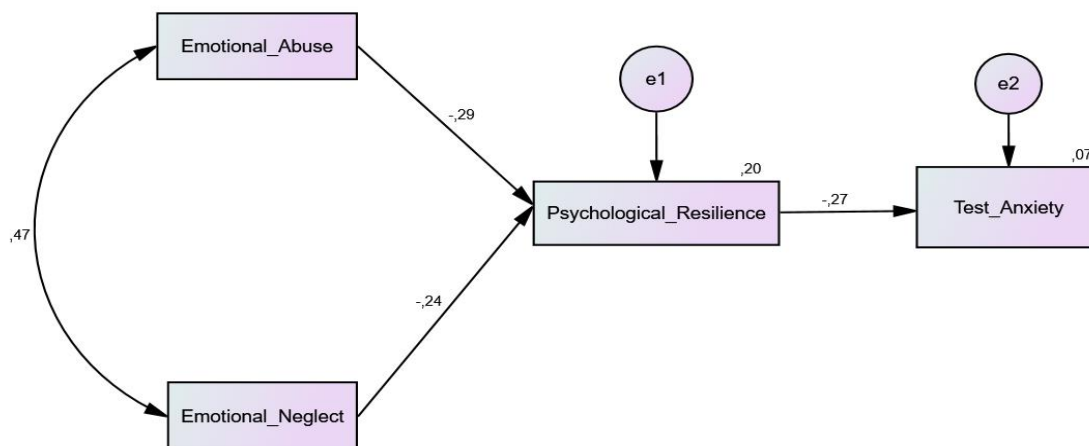


In the path analysis model, which examined the relationships between test anxiety, psychological resilience, and childhood traumas, variables formed the observed variables, and the model was analyzed accordingly. While evaluating the general fit of the model, the chi-square test showed the fit of the research result with the data obtained. For this reason, the  $p$  value of chi-square should not be significant. As a result of this study, the chi-square value was not found to be significant (Schumacker & Lomax, 2010). For this reason, it can be said that the model was consistent with the data. When the impact coefficients of the tested model were examined, it was found that the level of physical abuse predicted the level of psychological resilience ( $\beta = .07$ ,  $t = .1151$ ,  $p > .05$ ) insignificantly and that the level of physical neglect predicted psychological resilience at a low level ( $\beta = -.12$ ,  $t = -2.064$ ,  $p < .05$ ). Accordingly, the model was retested by removing the predictive relationship between physical neglect and abuse and psychological resilience in the hypothesis test model. Standardized coefficients for the final results are given in Figure 3.



Figure 3

Results of The Analysis of The Final Model Created for Test Anxiety



Fit indices of the model established between childhood traumas, psychological resilience, and test anxiety were found as follows:  $\chi^2 / df$  (chi-square) = .81,  $p > .05$ ; CFI (Comparative Fit Index) = 1.00; NFI (Normed Fit Index) = .99; TLI (Tucker-Lewis Index) = 1.00; RMSEA (Root-Mean-Square Error of Approximation) = .00; SRMR (Standardized Root Mean-Square Residual) = .02.  $\chi^2 / sd$ , RMSEA, and SRMR values of less than .05 and CFI, NFI, TLI, and RFI fit values of greater than .95 mean that the tested hypothesis model is perfect (Şimşek, 2007).

Table 2

Fit Indices Obtained for The Tested Model

Model fit indices	Model fit values	Fit values	
		Acceptable	Good / Very good
$X^2/sd$	.80	$0 < X^2/sd < 5$	$0 < X^2/sd < 3$
CFI	1.00	$.90 \leq CFI \leq 1.00$	$.95 \leq CFI \leq 1.00$
NFI	.99	$.90 \leq NFI \leq 1.00$	$.95 \leq NFI \leq 1.00$
TLI	1.00	$.90 \leq TLI \leq 1.00$	$.95 \leq TLI \leq 1.00$
RFI	.98	$.90 \leq TLI \leq 1.00$	$.95 \leq TLI \leq 1.00$
RMSEA	.00	$.00 \leq RMSEA \leq .08$	$.00 \leq RMSEA \leq .05$
SRMR	.02	$.00 \leq SRMR \leq .08$	$.00 \leq SRMR \leq .05$

CFI: Comparative Fit Index, NFI: Normed Fit Index, TLI: Tucker-Lewis Index, RMSEA: Root-Mean-Square Error of Approximation, SRMR: Standardized Root Mean-Square Residual

Table 3

*Effect Values of Predictive Variables on Predicted Variables*

	Emotional Abuse			Emotional Neglect			Psychological Resilience		
	1	2	3	1	2	3	1	2	3
Psychological resilience	-.29	-	-.29	-.24	-	-.24	-	-	-
Test anxiety	-	.08	.08	-	.06	.06	-.27	-	-.27

1: Direct effects; 2: Indirect effects; 3: Total effects

The results in Table 3 obtained for direct effects from the model test established for the prediction of test anxiety levels of middle school students indicated that psychological resilience predicted test anxiety significantly and negatively ( $\beta = -.27$ ,  $t = -5.74$ ,  $p < .001$ ). Emotional neglect ( $\beta = -.24$ ,  $t = -4.87$ ,  $p < .001$ ), emotional abuse ( $\beta = -.29$ ,  $t = -5.91$ ,  $p < .001$ ), which are sub-dimensions of the trauma scale, predicted psychological resilience significantly and negatively. The indirect effect of the sub-dimensions of the trauma scale on test anxiety through the mediation of psychological resilience was found to come from emotional neglect ( $\beta = .06$ ,  $p < .001$ ), and emotional abuse ( $\beta = .07$ ,  $p < .001$ ), and the results of the Bootstrap analysis showed that psychological resilience had a full mediation role in the relationship between test anxiety and emotional abuse and neglect (95% GA [-.34, -.16]). When full mediation is in question, it is expected that the relationship between the dependent or independent variable weakens or becomes statistically insignificant when the mediator variable is added to the analysis (Kline, 2018). In line with this information, psychological resilience was found to play a full mediator variable role between test anxiety and emotional abuse and emotional neglect.

### Discussion, Conclusions, and Recommendations

This study aimed to examine the predictive relationships between childhood traumas, psychological resilience, and test anxiety. The study also aimed to investigate the mediating role of psychological resilience in the relationship between childhood traumas and test anxiety. The results of correlation analyses showing the relationships between childhood traumas, psychological resilience, and test anxiety revealed that there was a negative relationship between test anxiety and psychological resilience, and a positive significant relationship between emotional abuse, physical abuse, emotional neglect, and physical neglect, which are sub-dimensions of childhood trauma. A negative significant relationship was found between psychological resilience and emotional abuse, physical abuse, emotional neglect, and physical neglect, which are the sub-dimensions of childhood trauma.

According to the findings of the study, a significant negative correlation was found between test anxiety and psychological resilience. In other words, as the psychological resilience levels of the students decreased, their test anxiety levels increased. The examination of the related literature indicated that there were studies supporting findings similar to those of the current study (De La Fuente et al., 2017; Totan et al., 2019; Trigueros et al., 2020; Jamshidi et al., 2017). According to the structural equation model established by Totan et al. (2019) on university students, it was found that psychological resilience negatively predicted test anxiety. Likewise, in the structural equation model established by Trigueros et al. (2020), it was found that psychological

resilience negatively predicted test anxiety. In addition, according to the path analysis model established by [Jamshidi et al. \(2017\)](#), psychological resilience was determined to negatively predict test anxiety. The results of these models in the literature were found to be consistent with the findings of the present study that psychological resilience negatively predicted test anxiety. In other words, as the level of psychological resilience increased, test anxiety decreased. According to this finding, it can be said that the high level of psychological resilience is a protective factor for the individual in terms of a lower level of test anxiety. Individuals with a high level of psychological resilience have internal and external resources, such as self-efficacy, internal discipline, awareness, autonomy, social competence, and perceived support, which may have increased students' beliefs in coping with test anxiety, thus reducing their test anxiety.

Another finding of the study was that there was a positive significant relationship between test anxiety and the sub-dimensions of childhood traumas, namely, emotional abuse, physical abuse, emotional neglect, and physical neglect. In other words, exposure to childhood traumas increased students' test anxiety levels. In the literature, although there are studies investigating the relationship between test anxiety and childhood traumatic experiences, some studies show a positive relationship between anxiety and childhood traumas ([Huh et al., 2017](#)). For example, [Gibb et al. \(2007\)](#) reported that traumatic experiences in childhood had a predictive effect on anxiety disorders in adulthood. Similar results were obtained in the study of [Huh et al. \(2017\)](#). [Krause, Mendelson, and Lynch \(2003\)](#) stated that maladjustment caused by traumatic experiences in early life would make the person vulnerable in various psychopathological situations. In this context, the maladjustment and inadequacies that occur along with emotional neglect and abuse can make the person vulnerable to the pressure, strain, and emotional coping that would only be caused by the national-level tests. Therefore, it is possible that students with such a childhood background can experience test anxiety.

The study also found that there was a significant negative relationship between psychological resilience and emotional abuse, physical abuse, emotional neglect, and physical neglect, which are the sub-dimensions of childhood trauma. In other words, increased exposure to traumas in childhood decreased the psychological resilience of the students. There are studies supporting these findings of the study in the related literature ([Carli et al., 2013](#); [Sexton et al., 2015](#)). For example, in a structural equation model study conducted by [Arslan and Balkis \(2016\)](#) on adolescents, it was found that emotional abuse negatively predicted psychological resilience. In the study conducted by [Kanak and Arslan \(2018\)](#), a negative relationship was found between emotional abuse and psychological resilience. In the path analysis model established by [Lee, Bae, Rim, Lee, Chang, Kim, and Won \(2018\)](#), it was found that emotional neglect negatively predicted psychological resilience. These findings were consistent with the findings of the present study that revealed emotional abuse and neglect negatively predicted psychological resilience. In a study conducted by [Feldman and Vengrober \(2011\)](#) on children who were exposed to war between the ages of 1.5 and 5, it was found that children who did not show post-traumatic stress disorder had stronger psychological resilience and that children with high psychological resilience were observed to receive social support from their mothers more. In other words, children who have psychological resilience cope more strongly with their stress experiences, and it can be said according to these results that children whose social support needs are met and not exposed to neglect and abuse by their parents feel more resistant to difficult life events.

According to the results of the study, it can be said that it is important to prepare and implement programs and activities to increase the psychological resilience of children who have test anxiety. At the same time, preparing and implementing post-traumatic growth programs aiming to strengthen the psychological resilience of children living in social welfare hostels and similar places will help children to cope with negative emotions such as anxiety and fear that may be experienced in the future. It can be said that the lack of research into how test anxiety is affected by experiences such as emotional neglect and abuse and the lack of studies on the functionality of the resilience variable in the process affects the depth of the discussion in this research to a certain extent. Especially, how children who experience trauma gain psychological resilience skills according to their age and how protective processes against risk behaviors are included in the system should be investigated longitudinally. When concepts, such as attachment styles, perceived social support, and coping with stress, that will help gain different perspectives are tested in similar models, the results can provide better support for understanding the results of this study.

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