

## Research Article

# The mediating role of resilience between positive personality traits and hopes of emerging adults: A structural equation modeling analysis

Esra Eren<sup>1</sup>, Funda Ergüleç<sup>2</sup> and Ahmet Kara<sup>3</sup>

<sup>1</sup>Eskişehir Osmangazi University, Faculty of Education, Eskişehir, Türkiye (ORCID: 0000-0001-5949-0516)

<sup>2</sup>Eskişehir Osmangazi University, Faculty of Education, Eskişehir, Türkiye (ORCID: 0000-0002-7236-7894)

<sup>3</sup>Kastamonu University, Department of Developmental Psychology, Kastamonu, Türkiye (ORCID: 0000-0002-1155-619X)

Understanding how resilience evolves across the lifespan is crucial for the development of targeted interventions and strategies aimed at promoting resilience. This study aims to investigate the complex interplay between resilience, positive personality traits, and hope in emerging adults. The criterion sampling method was employed to select participants falling within the specified age range. The study group consists of 353 university students aged 18-23, including 267 women and 86 men, all classified as emerging adults. Three different data collection tools were used in the study: The Big Five Inventory, The Brief Resilience Scale, and Dispositional Hope Scale. The data were evaluated with two-stage structural equation modelling. According to the results of this study, positive personality traits predict resilience at a moderate level. Simultaneously, resilience predicts hope at a moderate level. Additionally, positive personality traits predict hope at a high level. Finally, resilience plays a significant role in bridging personality traits and hope, serving as a buffer to protect both physical and psychological well-being. Recognizing the pivotal role of resilience, particularly in the context of education, this study emphasizes the importance of emerging adults' awareness of their personality traits and the encouragement to cultivate and effectively utilize positive personality traits. The study underscores the critical role of resilience in bridging positive personality traits and hope, with implications for educational institutions and the broader community.

Keywords: Psychological resilience; Positive personality traits; Hope; Emerging adults; Structural equation modeling

Article History: Submitted 27 August 2024; Revised 22 November 2024; Published online 15 December 2024

## 1. Introduction

Individuals use a variety of coping mechanisms when facing stressful situations or difficulties. Research has highlighted some people are able to make a speedy recovery or not experience significant deterioration at all (Bonanno et al., 2011; Kalisch et al., 2017; Ungar, 2013). Stressful situations such as trauma, life altering experiences, conflicts, illness, and pandemics have all been recognized as potential hazards for an individual's mental well-being (Willey et al., 2022; Zhu et

---

### Address of Corresponding Author

Esra Eren, PhD, Eskişehir Osmangazi University, Faculty of Education, 36480, Meselik Campus, Eskişehir, Türkiye.

✉ [eren@ogu.edu.tr](mailto:eren@ogu.edu.tr)

**How to cite:** Eren, E., Ergüleç, F., & Kara, A. (2025). The mediating role of resilience between positive personality traits and hopes of emerging adults: A structural equation modeling analysis. *Journal of Pedagogical Research*, 9(1), 1-16. <https://doi.org/10.33902/JPR.202430585>

al., 2021). It's still unclear what contributes to resilience, but research points out its importance in keeping mental health in good shape (Ryff & Singer, 2000).

### **1.1. Resilience**

Resilience can be defined as the capacity to effectively recover from negative emotional experiences and to adjust and adapt to changes with flexibility (Block & Kremen, 1996). Understanding resilience becomes important, as emerging adults are confronted with stressful life events that make them vulnerable to depression (Sapançı & Akkaya, 2022). Various perspectives on the factors that contribute to resilience have been investigated by the researchers. One of these perspectives suggests that resilience is comprised of a set of personality traits that are expressed in response to life events and individual characteristics including individual's thoughts, feelings, and behaviors (Cloninger & Zohar, 2011; Connor & Davidson, 2003; Werner, 1995).

By considering resilience as a cluster of personality traits, insights can be gained into how individuals' thoughts, feelings, and behaviors contribute to one's ability to overcome challenges. It highlights the critical role that personal characteristics play in shaping resilience and underscores the potential for personal growth and adaptation when faced with challenges (Prince-Embury, 2012).

### **1.2. Resilience and Emerging Adulthood**

Numerous studies have explored the dynamic relationship between resilience and personality traits over the years. This correlation is subject to change, influenced by factors such as age, culture, and context. Some studies suggest an increasing trend in resilience with age, attributing it to the accumulation of life experiences over time (Gillespie et al., 2009). Conversely, other research suggests a negative correlation between resilience and age, indicating a potential decline in resilience among older individuals (Beutel et al., 2009).

In a recent study by Nieto et al. (2023), while age did not emerge as a major predictor of resilience, the findings indicated that younger individuals exhibited higher levels of resilience compared to their older counterparts. This underscores the significance of examining the interplay between personality traits and resilience throughout successive generations. Notably, contemporary research, as exemplified by Färber and Rosendahl (2020) and Nieto et al. (2023), has failed to discern substantial correlations between age and resilience. These results imply that the intricate nature of the relationship between age and resilience is shaped by diverse contextual elements, individual distinctions, and the array of challenges encountered by individuals at distinct life stages (Windle, 2011).

Emerging adulthood, characterized by a plethora of new opportunities and specific challenges, poses a crucial juncture for individuals (Karataş & Çelikkaleli, 2018). This period is marked by the simultaneous decline in longstanding family support, the need to make autonomous decisions, and the weighty choices that can profoundly influence their entire lives (Atak & Çok, 2010). Navigating through these challenges makes it a demanding phase for emerging adults. Considering these circumstances, resilience emerges as a pivotal factor in shaping the well-being of individuals in the emerging adulthood stage. Resilience equips individuals with the ability to swiftly analyze problems, generate effective solutions, adapt to novel situations, and contribute positively to their overall well-being. Therefore, resilience may serve as a crucial resource for individuals as they navigate the complex landscape of emerging adulthood, fostering adaptability and a positive trajectory in their lives.

### **1.3. Resilience and Personality**

Resilience and personality are two constructs that have received considerable attention in the literature. Researchers have explored the relationship between resilience and personality traits, especially within the framework of the Big Five personality traits. Several studies have demonstrated that neuroticism and extraversion are two of the Big Five personality traits that have been linked to resilience (Campbell-Sills et al., 2006; Nieto et al., 2023). Neuroticism, characterized

by anxiety, worry, and emotional instability, has been negatively associated with resilience, in contrast, extraversion, which entails sociability, assertiveness, and positive emotions, has been found to be positively related to resilience (Campbell-Sills et al., 2006; Nieto et al., 2023).

Positive personality traits, such as responsibility, extraversion, openness to experience, and agreeableness, have been noted as advantageous in confronting challenging circumstances. For instance, individuals exhibiting responsibility were found to frequently demonstrate elevated levels of psychological resilience (Backmann et al., 2019; Campbell-Sills et al., 2006; Connor-Smith & Flachsbart, 2007; Nieto et al., 2023; Wei & Taormina, 2014). Individuals exhibiting qualities such as sociability, energy, and assertiveness, traits linked to extraversion, were found to generally display higher levels of resilience (Backmann et al., 2019; Campbell-Sills et al., 2006; Connor-Smith & Flachsbart, 2007; McDonnell & Semkowska, 2020; Nieto et al., 2023). Additionally, research findings affirm a positive correlation between openness to experience and psychological resilience (Backmann et al., 2019; Nieto et al., 2023). Agreeableness also contributes positively to individuals' perceptions of social support and their capacity to foster positive emotions (Campbell-Sills et al., 2006); thus, their minimized involvement in conflicts, enhanced social acceptance, and increased emotional support all contribute to this heightened resilience (Ercan, 2017).

During the stages of emerging and young adulthood, Shiner and Masten (2012) observed that individuals characterized by elevated levels of resilience exhibited heightened levels of childhood conscientiousness, agreeableness, and openness, coupled with diminished levels of neuroticism, in comparison to those with lower resilience levels. To unravel the intricate connection between resilience and personality, additional research is imperative. The indicated findings posit that personality might contribute to the gradual cultivation of resilience over time.

#### **1.4. Resilience and Hope**

Hope has been a fundamental concept actively employed in the processes that have facilitated human survival throughout existence, bolstering well-being and contributing to mental health support (Tarhan & Bacanlı, 2015). Regarding the hope and resilience, the studies found that pessimistic future-oriented thinking has a negative effect on resilience and has been found to be a factor in predicting lower levels of resilience (Gooding et al., 2012; Nieto et al., 2023). Closely related with the personality traits, the traits of neuroticism and introversion increase the chance of feeling hopeless (Nieto et al., 2023). Regarding age, older persons had much greater degrees of pessimism than their younger counterparts did (Nieto et al., 2023). Emerging adults with high psychological resilience, possessing strong willpower, can effectively utilize resources to cope with stressful situations and approach life with a positive outlook (Bajaj et al., 2022). While resilience and hope are intertwined, exerting positive influences on both physical and psychological health and thereby contributing to overall well-being, these topics have not been thoroughly studied and require more in-depth investigation.

#### **1.5. The Purpose of the Study**

Insight into how resilience evolves across the lifespan can inform the development of targeted interventions and strategies aimed at promoting resilience. Thus, further research is needed to explore the complex interplay between resilience, personality traits, and hope. Understanding age-related differences in resilience can have important implications for interventions and strategies aimed at promoting resilience across the lifespan. Thus, the general aim of this research is to test the mediating role of resilience between positive personality traits and hopes of emerging adults with structural equation modeling. In line with this general aim, the following hypotheses have been developed.

**H1:** More positive personality traits will predict higher levels of resilience.

Positive traits such as responsibility, extraversion, openness, and agreeableness have been repeatedly linked to greater resilience (Backmann et al., 2019; Campbell-Sills et al., 2006; Nieto et al., 2023). For example, individuals with a sense of responsibility exhibit enhanced self-regulation

and goal-oriented behaviors that bolster their resilience in the face of adversity (McCrae & John, 1992). Similarly, extraverted individuals are more likely to engage with social networks and exhibit positive affect, both of which contribute to greater adaptability during stressful situations (Campbell-Sills et al., 2006). Therefore, it is expected that individuals with more pronounced positive personality traits will exhibit higher resilience levels.

**H2:** Higher levels of resilience will predict higher levels of hope.

As individuals with higher resilience are better able to cope with adversity and manage stress, they are more likely to sustain an optimistic outlook on the future (Alımaçık et al., 2021; Boland & Cappelliez, 1997; Karataş & Tagay, 2021). Resilience enables individuals to draw on resources effectively and recover from negative experiences, which in turn enhances their belief in future success and fosters hope (Bajaj et al., 2022). The positive association between resilience and hope has been demonstrated across various populations, underscoring the critical role of resilience in maintaining hopefulness, particularly during challenging times (Senger et al., 2023).

**H3:** More positive personality traits will predict higher levels of hope.

Traits such as extraversion, responsibility, and openness to experience have been shown to predict more positive future outlooks and greater hope (Chioqueta & Stiles, 2005; Cloninger & Zohar, 2011; Di Fabio et al., 2018). Extraverted individuals, for instance, tend to exhibit greater vitality and joy in life, which facilitates an optimistic perspective on the future (Costa & McCrae, 1980). Similarly, individuals with a strong sense of responsibility or openness to experience often approach challenges as opportunities, enhancing their hopefulness about future outcomes (Halama & Dedova, 2007; Rostami et al., 2022). These findings suggest that individuals with positive personality traits are better equipped to maintain hope, as they possess the psychological flexibility and positive affect necessary to envision and strive for a successful future.

**H4:** The mediating effect of resilience is significant between positive personality traits and hope.

Individuals with positive personality traits are more likely to develop higher levels of resilience, which in turn fosters greater hope. Previous studies have established that resilience serves as a buffer, enabling individuals to manage setbacks and maintain a hopeful outlook (Connor & Davidson, 2003; Förster & Duchek, 2017). As resilience is both context-dependent and dynamic, it may vary across different life stages and challenges, but it remains a key mechanism through which personality traits influence hope (Fisher et al., 2019). This finding is especially relevant for emerging adults, who may face new challenges during periods of transition, making resilience a crucial factor in maintaining hope despite uncertainties about the future (Karataş & Çelikkaleli, 2018). Figure 1 shows the hypothetical structural model.

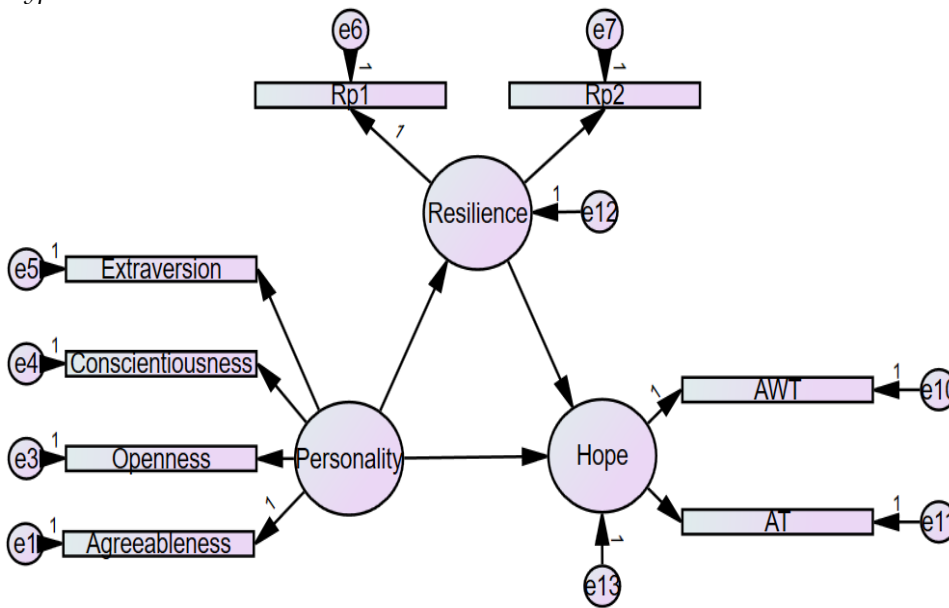
## 2. Method

### 2.1. Research Group and Procedure

The study was conducted at two state universities in Turkey. The investigation employed a Google Forms to collect data and explicit measures were implemented to secure informed consent from all participating individuals. The data collection process was conducted through an online survey in order to collect and analyze the data quickly. All questions were marked mandatory in the Google Forms to avoid missing values. The participants were reached through the learning management system and social media platforms. The survey was open for a week. During the research, participant information was kept confidential. The inclusion criteria for the study were established, stipulating that eligible participants were emerging adults aged 18-23 who were volunteers and did not possess any psychiatric diagnoses. The criterion sampling method was employed to select participants falling within the specified age range. The age distribution of participants is as follows: 89 individuals were aged 18, 125 individuals were aged 19, 69 individuals were aged 20, 40 individuals were aged 21, 23 individuals were aged 22, and 7 individuals were aged 23. Thus, the majority of participants fall within the age range of 18 to 23 years. It is imperative to highlight

Figure 1

Hypothetical structural model



Note. Rp1, Rp2, = Parcels of resilience; AT= Actuating thinking, AWT= Alternative ways thinking.

this process resulted in the exclusion of seven individuals from the dataset. Among these exclusions, three individuals were aged 17, one individual was 27, one was 28, and one each were 29 and 30 years old. Consequently, the subsequent analysis was conducted on the remaining cohort of 353 emerging adults, comprising 267 (75.6%) women and 86 (24.4%) men. Additionally, participants belonged to diverse fields of study, including educational sciences (e.g., preschool education, special education and guidance and psychological counseling), health sciences (e.g., nursing), social sciences (e.g., psychology).

## 2.2. Instruments

### 2.2.1. The big five inventory (BFI)

BFI was developed by Benet-Martínez and John (1998) and Turkish adaptation, validity and reliability analyzes were carried out by Sümer and Sümer (2005). BFI is a measurement tool consisting of 44 items and 5 dimensions (extraversion, agreeableness, neuroticism, openness and conscientiousness). In this research four positive personality dimensions were used because the model was designed with an undiagnosed research group and positive variables; The neuroticism dimension, which is a negative personality trait, was not included. The BFI includes items such as "Making plans and following through with them" and "Curious about many different topics". In the findings of the reliability analysis of BFI, its sub-dimensions vary between  $\alpha = .64$  and  $\alpha = .77$  (Sümer & Sümer, 2005). For construct validity Gökler and Taştan (2018) detected acceptable levels of fit indices ( $\chi^2/df = 3.3$ ; GFI = 0.94; CFI = 0.94; AGFI = 0.97 and RMSEA = 0.05) in the findings of confirmatory factor analysis. In the current research, reliability analysis was found ( $\alpha = .54$  for agreeableness;  $\alpha = .73$  for extraversion;  $\alpha = .76$  for openness and  $\alpha = .67$  for conscientiousness).

### 2.2.2. The brief resilience scale (BRS)

BRS, developed by Smith et al. (2008). Its Turkish adaptation, validity and reliability analyzes were performed by Doğan (2015). BRS is a one-dimensional, six-item scale. Since BRS is one-dimensional, parceling process was carried out depending on the item-total correlation in this research. The BFI includes items such as "I get through tough times with very little difficulty" and "I have difficulty coping with stressful events". Parceling process; improves the reliability and normal distribution of data (Alhija & Wisenbaker, 2006). In this context, two virtual factors were assigned to the resilience variable. On the other hand, in the confirmatory factor analysis findings,

it is understood that fit indices ( $\chi^2/df = 1.83$ ; GFI = .99; CFI = .99; AGFI = .96 and RMSEA = .05) was at an acceptable level (Doğan, 2015). In addition, the reliability analysis was calculated as  $\alpha = 0.83$  by Doğan (2015). In this research, it was observed that  $\alpha = 0.79$  for the entire BRS.

### 2.2.3. Dispositional hope scale (DHS)

DHS, developed by Snyder et al. (1991), its adaptation to Turkish, validity and reliability study was carried out by Tarhan and Bacanlı (2015). DHS has a two-dimensional (actuating and alternative ways thinking) and eight-item structure. The DHS includes items such as "There are many solutions to a problem" and "I usually find something to worry about". For construct validity, exploratory and confirmatory factor analysis was conducted by Tarhan and Bacanlı (2015). In the exploratory factor analysis findings, the total explained variance of DHS was determined as 61%. In addition, in the confirmatory factor analysis of DHS, fit indices were observed at an acceptable level (GFI = 0.96, NNFI = 0.94, AGFI = 0.92 and RMSEA = 0.07). On the other hand, it was reported as  $\alpha = .84$  for the whole DHS in the findings of the reliability analysis (Tarhan & Bacanlı, 2015). In the current research, reliability analysis was determined as ( $\alpha = 0.78$  for actuating thinking and  $\alpha = .81$  for alternative ways thinking).

## 2.3. Statistical Analysis

In this research, firstly, normality, Pearson product moment correlation coefficients and multicollinearity assumptions were examined within the scope of preliminary analysis (Kline, 2015). The preliminary analysis assumptions were met (see Table 1). In this study, a two-step structural equation modeling approach was preferred to determine the mediating role of psychological resilience in the relationship between positive personality traits and hope. In the first stage, the measurement model was tested and after it was verified, the structural model was tested (Anderson & Gerbing, 1988). Some fit indices [ $\chi^2/df$ , GFI, NFI, AGFI, CFI and RMSEA], standardized path coefficients, factor loads and t values were taken into account in deciding whether these two models were compatible with the data (Kline, 2015). The criteria proposed by Schermelleh-Engel et al. (2003) were used to evaluate these fit indices (see Table 2). In addition, Maximum Likelihood was preferred as the probability method. In addition to these, mediation analysis was also performed. In this context, the chi-square difference test and comparison fit indices (AIC and ECVI) values were used. Finally, whether the mediating effects were significant was tested by bootstrap analysis. For this, 1000 resamples were created and lower and upper limits were determined. The significance of the mediating effect is established when neither the lower nor upper limit intervals encompass zero (Shrout & Bolger 2002). The data were analyzed with AMOS 21 package program.

## 3. Findings

### 3.1. Preliminary analysis

In the current research, normality and multicollinearity assumptions were evaluated within the scope of preliminary analysis. First, the normality assumption was tested based on the kurtosis and skewness values. In this research was detected to vary between the kurtosis value was -.38 to 2.87 and the skewness value  $-1.33$  to .15 (see Table 1). Since these results are between the  $-3$  and  $+3$  limit ranges suggested by Kalaycı (2016), the assumption of normality was confirmed in this research.

The second assumption which as multicollinearity was evaluated according to VIF and tolerance values and Pearson product moment correlation coefficient. In this research was observed to vary between the VIF value 1.26 to 2.20 and the tolerance value .45 to .79 (see Table 1). In these results, Since the VIF value is less than 5 and the tolerance value is greater than .10, it is seen that there is no multicollinearity problem in the current research (Kline, 2015). In addition, in the current research was not found Pearson product moment correlation coefficient .90 and above

between the variables (see Table 1). It provides further proof that there is no multicollinearity problem in the current research.

Table 1  
Preliminary analysis findings

Variables	1	2	3	4	5	6	7	8
(1) Agreeableness	1							
(2) Openness	.31**	1						
(3) Conscientiousness	.39**	.36**	1					
(4) Extraversion	.24**	.38**	.22**	1				
(5) Rp1	.04	.13*	.16**	.17**	1			
(6) Rp2	-.05	.18*	.11*	.19**	.64**	1		
(7) AWT	.32**	.53**	.35**	.30**	.28**	.23**	1	
(8) AT	.36**	.45**	.46**	.35**	.24**	.24**	.68**	1
Arithmetic Mean	32.99	35.81	31.54	27.00	9.37	9.14	22.66	21.14
Standard Deviation	4.75	6.28	5.49	5.64	2.73	2.60	4.11	4.44
Kurtosis	.43	.34	-.38	-.12	-.36	-.12	2.87	1.04
Skewness	-.41	-.62	-.06	.00	.00	.15	-1.33	-.85

Note. \*\* $p < .01$ ; \* $p < .05$ ; Rp1, Rp2, = Parcels of resilience; AT= Actuating thinking, AWT= Alternative ways thinking.

### 3.2. Testing the Two-stage Structural Equation Modeling

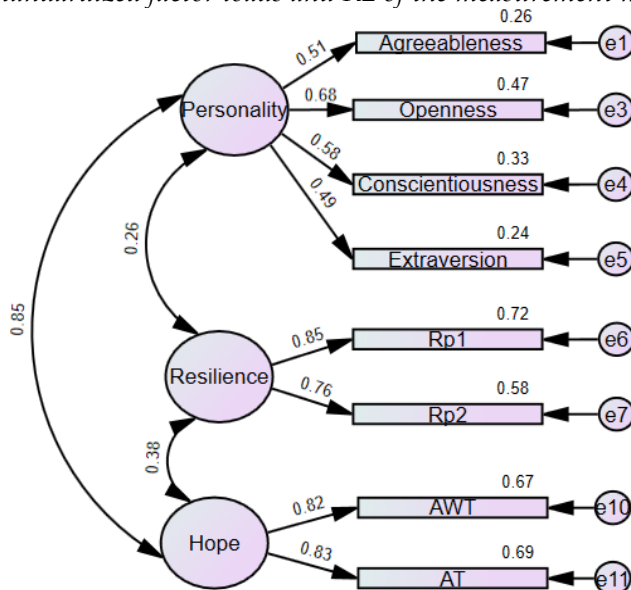
In the current research, the data were evaluated with two-stage structural equation modeling (Anderson & Gerbing, 1988). In the first step, the measurement model was tested and confirmed. Following the confirmation of this measurement model, the structural model underwent testing.

#### 3.2.1. First stage: Measurement model

The measurement model includes three latent variables (Personality, Resilience, and Hope) and eight observed variables [Agreeableness, Openness, Conscientiousness, Extraversion, Parcels of Resilience (Rp1, Rp2), Actuating Thinking and Alternative Ways Thinking]. When the measurement model was tested, it showed acceptable fit indices [ $\chi^2/df$  (59.521/17) = 3.50,  $p < .001$ ; GFI= 0.96, CFI = 0.94, NFI = 0.93 AGFI = 0.91 and RMSEA = 0.08 (90% CI). for RMSEA = (0.06–0.10)] In addition, standardized factor loadings in the measurement model ranged from 0.49 to 0.85, and all  $t$ -values were found to be significant (see Figure 2). All these findings prove that the measurement model was validated.

Figure 2

Standardized factor loads and R2 of the measurement model



### 3.2.2. Second stage: Structural model

At this stage firstly Full Mediation Structural Model (MODEL B) has been tested. At this point, a direct path to hope from personality traits has not been established. Instead, it was examined that personality traits predict hope through resilience. When the Full Mediation Structural Model (MODEL B) is analyzed, the fit indices [ $(\chi^2/\text{df} (235.901/18) = 13.10, p < .001; \text{GFI} = 0.87, \text{CFI} = 0.76, \text{NFI} = 0.74, \text{AGFI} = 0.74$  and  $\text{RMSEA} = 0.18$ ) (90% CI for  $\text{RMSEA} = 0.16-0.20$ )] was appeared to be inconsistent with the data.

Secondly, the Partial Mediation Structural Model (referred to as MODEL A) was examined. In this direction, a direct path has been added between personality traits and hope. As a result of the Partial Mediation Structural Model (MODEL A) testing, was observed acceptable fit indices [ $(\chi^2/\text{df} (59.521/17) = 3.50, p < .001; \text{GFI} = 0.96, \text{CFI} = 0.94, \text{NFI} = 0.93$   $\text{AGFI} = 0.91$  and  $\text{RMSEA} = 0.08$  (90% CI for  $\text{RMSEA} = 0.06-0.10$ )].

As can be seen from the above findings, fit indices of the Full Mediation Structural Model (MODEL B) were not found to be compatible with the data. On the other hand, since fit indices of the Partial Mediation Structural Model (MODEL A) are at an acceptable level, it is concluded that it is the best model (see Table 2).

In addition to these, the chi-square difference test was used as another proof in deciding which model is more preferable. According to the Chi-square difference test findings, the direct path added between personality traits and hope contributes significantly to the model ( $\Delta\chi^2 = 176.38, \text{df} = 1, p < .001$ ). As a final proof, Model A ( $\text{AIC} = 97.521; \text{ECVI} = .277$ ) founded smaller values than Model B ( $\text{AIC} = 271.901; \text{ECVI} = .766$ ) (see Table 2). In line with all these findings, the best model was chosen as the Partial Mediation Structural Model (MODEL A).

Table 2

*Fit Indices among competing models*

<i>Fit Measure</i>	<i>Acceptable Fit Criteria</i>	<i>MODEL A<sup>a</sup></i>	<i>MODEL B</i>
$\chi^2/\text{df}$	$2 \leq \chi^2/\text{df} \leq 3$	3.50	13.10
AGFI	$0.85 \leq \text{AGFI} \leq 0.90$	0.91	0.74
GFI	$0.90 \leq \text{GFI} \leq 0.95$	0.96	0.87
CFI	$0.90 \leq \text{CFI} \leq 0.95$	0.94	0.76
NFI	$0.90 \leq \text{NFI} \leq 0.95$	0.93	0.74
RMSEA	$0.05 \leq \text{RMSEA} \leq 0.08$	0.08	0.18
AIC	smaller than AIC for comparison model	97.521	271.901
ECVI	smaller than ECVI for comparison model	.277	.766

Source: (Schermele-Engel, Moosbrugger and Müller, 2003). <sup>a</sup>Represents the best-fitting model

Table 3

*Unstandardized factor loads, standard error and t-values of the partial mediation structural model (MODEL A<sup>a</sup>)*

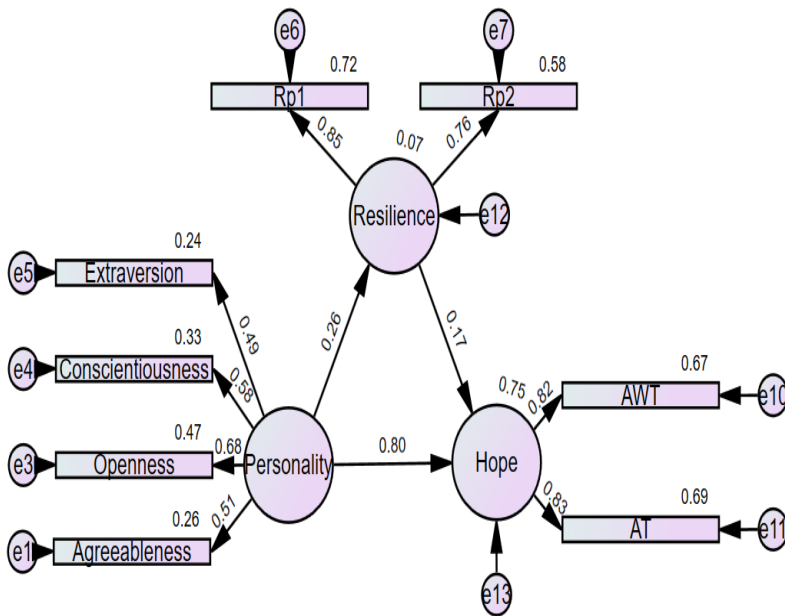
<i>Predicted</i>		<i>Predictor</i>	<i>Estimate</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Resilience	←	Personality	.248	.074	3.362	***
Hope	←	Resilience	.245	.088	2.795	.005
Hope	←	Personality	1.106	.145	7.605	***
Agreeableness	←	Personality	1.000			
Openness	←	Personality	1.755	.221	7.941	***
Conscientiousness	←	Personality	1.297	.178	7.304	***
Extraversion	←	Personality	1.124	.171	6.585	***
Rp1	←	Resilience	1.000			
Rp2	←	Resilience	.857	.141	6.079	***
AWT	←	Hope	1.000			
AT	←	Hope	1.100	.078	14.107	***

Note. \*\*\* $p < .001$ ; \*\* $p < .01$ ; Rp1, Rp2, = Parcels of resilience; AT= Actuating thinking, AWT= Alternative ways thinking.



Figure 3

Standardized path coefficients and R2 for partial mediation structural model (MODEL A<sup>a</sup>)



Note. \*\*\* $p < .001$ ; \*\* $p < .01$ ; Rp1, Rp2, = Parcels of resilience; AT= Actuating thinking, AWT= Alternative ways thinking.

According to Figure 3, a one-unit increase in personality was related to a 0.26 ( $t = 3.362$ ;  $p < .001$ ) unit increase in resilience. A one-unit increase in resilience as related to a 0.17 unit increase ( $t = 2.795$ ;  $p < .01$ ) in hope. Finally, a one-unit increase in personality was related to a 0.80 unit ( $t = 7.605$ ;  $p < .001$ ) increase in hope. When the explained variances ( $R^2$ ) were examined, personality accounted for approximately 7% of resilience. Personality and resilience together explained approximately 75% of the variations in hope.

### 3.3. Bootstrap Analysis (Significance of Mediating Effect of Resilience)

Bootstrapping analysis was performed for the partial mediation structural model (MODEL A<sup>a</sup>), which was decided to be the best model. In other words, it was tested whether the mediating effect of resilience was significant between personality traits and hope. For this, 1000 resamples were created. In addition, lower and upper bound confidence intervals were determined (Hayes, 2017).

Table 4

Bootstrapping analysis results of partial mediation structural model (MODEL A<sup>a</sup>)

Model pathways	Bootstrap values		Bias %95CI		p
	$\beta$	SE	Lower	Upper	
Mediator Effect					
Personality → Resilience → Hope	.044	.016	.024	.079	.004

In Table 4, bootstrapping analysis results of partial mediation structural model (MODEL A<sup>a</sup>) are given. These results show that the indirect effect of personality traits on hope is significant ( $\beta = .044$ ,  $SE = .016$  [95% CI = .024, .079,  $p < .05$ ]). All these results prove that the mediating effect of resilience between personality traits and hope is significant.

## 4. Discussion

In recent years, the emphasis on maintaining physical and mental health and fostering well-being has grown significantly, driven in part by various crises. Hope stands out as a key element in enhancing people's quality of life in the modern world, underscoring the importance of understanding the mechanisms that contribute to individuals' hopefulness and providing support. In this context, the primary objective of the study is to ascertain the mediating role of psychological resilience between personality traits and hope levels among emerging adults. Within

the framework of this overarching goal, the structural equation modeling employed in the study has illuminated a significant mediating effect of psychological resilience between personality traits and hope levels. The study's hypothesis is interpreted in alignment with existing literature as follows.

#### **4.1. Positive Personality Traits and Resilience**

In line with the first hypothesis of the research (H1) positing that 'more positive personality traits will predict higher levels of resilience,' the study determined that positive personality traits indeed positively predict psychological resilience, confirming the hypothesis. In simpler terms, as the prevalence of positive personality traits among individuals increases, so does their level of psychological resilience. This result aligns with previous studies demonstrating a positive association between positive personality traits and psychological resilience (Boland & Cappelliez, 1997; Connor-Smith & Flachsbart, 2007; Förster & Duchek, 2017; Nieto et al., 2023). Consequently, it can be inferred that individuals' personal characteristics play a pivotal role in determining their levels of psychological resilience, with those possessing a healthy personality structure exhibiting greater resilience.

In studies exploring the interplay between personality traits and resilience, the five-factor personality model is frequently employed. Positive personality traits such as responsibility, extraversion, openness to experience, and agreeableness are commonly associated with better adaptability to adverse conditions. Among these traits, responsibility, as the first personality trait, consistently emerges as a predictor of higher levels of psychological resilience, as supported by various studies (Backmann et al., 2019; Campbell-Sills et al., 2006; Connor-Smith & Flachsbart, 2007; Nieto et al., 2023; Wei & Taormina, 2014).

Responsibility, characterized by elevated levels of self-regulation, perseverance, impulse control, achievement orientation, and self-discipline (McCrae & John, 1992), is linked to increased resilience. The heightened resilience observed in individuals with greater responsibility can be attributed to their organizational skills, diligence, achievement-oriented mindset, and overall better-equipped coping mechanisms in the face of difficulties (Wei & Taormina, 2014). Responsible individuals exhibit strong cognitive determination, enabling them to engage in cognitive restructuring, develop structured action plans, and adopt an active, problem-focused approach to effectively navigate challenges (Backmann et al., 2019; Campbell-Sills et al., 2006; Connor-Smith & Flachsbart, 2007).

The research results suggest that individuals characterized by traits such as sociability, energy, and assertiveness, associated with extraversion, tend to exhibit higher levels of resilience (Backmann et al., 2019; Campbell-Sills et al., 2006; Connor-Smith & Flachsbart, 2007; McDonnell & Semkovska, 2020; Nieto et al., 2023). The elevated resilience observed in more extraverted individuals can be attributed to their heightened experience of positive emotions, increased flexibility, and enhanced ease of communication with others (Campbell-Sills et al., 2006). Moderately social individuals benefit from robust social support networks that aid them in coping with difficulties, adversities, and expectations (Backmann et al., 2019). According to Connor-Smith and Flachsbart (2007), as levels of extraversion increase, individuals tend to exhibit improved problem-solving and cognitive restructuring skills, akin to the impact of responsibility. Consequently, extraversion emerges as a fundamental quality in the context of psychological resilience processes.

Research, as evidenced by studies conducted by Backmann et al. (2019) and Nieto et al. (2023), robustly supports the existence of a positive relationship between openness to experience and psychological resilience. The heightened resilience observed in individuals open to experience can be elucidated by their proclivity to thoroughly evaluate situations, adopt a critical stance before reaching conclusions or formulating strategies, demonstrate the courage to experiment with various options, generate original solutions, and exhibit adaptability (Connor-Smith & Flachsbart, 2007; Ercan, 2017). Individuals possessing this trait are viewed as flexible in the face of changes,

showcasing the ability to adapt their resources to achieve work objectives and navigate challenging experiences (Backmann et al., 2019). Moreover, individuals open to experience can acquire social support—a predictor of resilience—through engagement in social activities, akin to extraverted individuals (Backmann et al., 2019).

The research results, as reflected in studies conducted by Ercan (2017) and Nieto et al. (2023), affirm a positive relationship between the personality trait of agreeableness and psychological resilience, consistently corroborating the findings of this study. When examining the conceptual framework of resilience, which centers on adaptation, agreeableness personality intersects with the core principles of resilience. The observed increase in resilience with higher levels of agreeableness can be attributed to the inclination of individuals with this personality trait to be thoughtful, helpful, cooperative, and kind. They experience fewer conflicts in the communication process, enjoy greater social acceptance in their environment, and receive more emotional support (Ercan, 2017). Similar to extraversion, agreeableness also exerts a positive influence on individuals' perception of social support and their capacity to generate positive emotions (Campbell-Sills et al., 2006).

Resilience is shaped by individuals' emotional and behavioral responses to adversity, as well as personal or environmental factors that foster these resilience mechanisms (Fisher et al., 2019). In this context, positive personality traits play a pivotal role in guiding individuals' behaviors as they navigate life after challenging experiences. Fisher et al. (2019) have identified the presence of one or more resilience mechanisms within the structure of each mentioned personality type. These mechanisms include seeking support, regulating emotions, acceptance/finding meaning, cognitive reinterpretation, and self-regulation strategies. Responsible individuals exhibit planning and diligence, while extraverted individuals showcase positive affect and openness to communication. Open individuals demonstrate flexibility and a richness of perspective, and agreeable individuals exhibit a positive outlook and a perception of support. These characteristics empower individuals in the face of challenging life events, highlighting the diverse ways in which positive personality traits contribute to resilience.

#### **4.2. Resilience and Hope**

According to the second hypothesis of the research (H2) "higher levels of resilience will predict higher levels of hope," it was determined that resilience predicts hope positively and the hypothesis was confirmed. In other words, as individuals' resilience levels increase, their levels of hope also increase. The positive relationship between resilience and hope has been demonstrated in previous studies (Alınmaçık et al., 2021; Boland & Cappelliez, 1997; Karataş & Tagay, 2021; Nemati et al., 2022; Senger et al., 2023).

Hope is a concept that has played a crucial role in the survival and well-being of human beings throughout their existence, supporting mental health (Tarhan & Bacanlı, 2015). Resilience is identified as being positively associated with key indicators of psychological health, including positive affect and life satisfaction (Connor & Davidson, 2003). Students characterized by high psychological resilience can adeptly utilize resources to navigate stressful situations and approach life with a positive outlook, reflecting their strong willpower (Bajaj et al., 2022). Thus, resilience and hope are intertwined, both exerting a positive influence on physical and psychological health and contributing to overall well-being.

#### **4.3. Positive Personality Traits and Hope**

The third hypothesis of the research (H3), positing that 'more positive personality traits will predict higher levels of hope,' has been supported, affirming that positive personality traits indeed positively predict hope. To put it differently, individuals exhibiting more positive personality traits tend to harbor a more hopeful outlook toward the future. The research results underscore the positive impact of positive personality traits on hope, aligning with previous studies (Chioqueta & Stiles, 2005; Cloninger & Zohar, 2011; Di Fabio et al., 2018; Halama & Dedova, 2007; Halama, 2010; Nieto et al., 2023; Rostami et al., 2022; Wei & Taormina, 2014).

Individuals' responses to difficulties or coping strategies may vary, with some quickly rebounding from the mood instigated by stressful and traumatic experiences to resume their normal lives (Doğan, 2015). This ability can be attributed to their unique personality structures that distinguish them from others. For example, greater extraversion predisposes individuals to positive emotions linked to vitality and joy in life (Costa & McCrae, 1980). These emotions, in turn, can facilitate optimistic thinking, recognized as one of the components of hope (Halama, 2010).

When scrutinizing the definitions of responsibility and hope, both classified as personality traits, it becomes evident that both are oriented towards individuals' capabilities to achieve their goals (Halama & Dedova, 2007). Individuals characterized by a strong sense of responsibility tend to exhibit organizational and disciplined traits, allowing them to resiliently navigate negative emotions and face the future with confidence. On the other hand, individuals with high levels of openness are more likely to possess elevated levels of hope, as they tend to impartially assess challenges, viewing them as opportunities for new experiences (Chioqueta & Stiles, 2005).

The adaptability of individuals is closely linked to their willingness to share difficulties with others, positive evaluation of events, and the belief that their actions will lead to success. As adaptability increases, there is an observable elevation in hope levels (Rostami et al., 2022). Moreover, higher levels of self-transcendence, self-regulation, and collaboration have been correlated with increased positive affect (Wei & Taormina, 2014). The enhancement of collaboration contributes to strengthened perceptions of social support, and such perceptions have been identified as potent contributors to increased positive emotions (Cloninger & Zohar, 2011).

#### **4.4. Mediator Role of Resilience between Positive Personality Traits and Hope**

The fourth hypothesis of the research (H4), asserting that 'The mediating effect of resilience is significant between positive personality traits and hope,' has been established and confirmed. Furthermore, it was demonstrated that resilience plays a partial mediating role between positive personality traits and hope. Additionally, the study revealed that positive personality traits, in conjunction with resilience, significantly predict hope.

The participants in this study, university students, find themselves in the emerging adulthood stage, a period marked by various new opportunities and challenges (Karataş & Çelikkaleli, 2018). Despite encountering these opportunities, this phase necessitates coping with specific challenges. On one hand, the waning of longstanding family support and the imperative to make autonomous decisions; on the other hand, the responsibility of making impactful life decisions, render this period challenging for emerging adults (Atak & Çok, 2010). Resilience emerges as a crucial factor contributing to the well-being of emerging adult university students, enabling them to swiftly analyze problems, devise solutions, and adapt to new situations. In the literature, resilience is recognized as a protective factor facilitating individuals in overcoming negative emotions, returning to normal life, and sustaining happiness (Connor & Davidson, 2003). Moreover, resilience not only augments positive mood but also serves as a buffer against potential mood disorders (McDonnell & Semkovska, 2020).

The present century, characterized by incessant change and transitions, underscores the necessity for individuals to continuously develop themselves and adapt to ever-evolving conditions (Di Fabio et al., 2018). Hope is recognized as a crucial factor aiding emerging adults in managing potential stress, alleviating concerns about the future, and maintaining focus on their goals for success. It can be deduced that individuals' levels of hope are influenced by the positive personality traits and resilience levels they possess. However, personality traits, despite the potential for change through maturation processes and life experiences, are generally considered relatively stable characteristics that may not easily alter over a short period (Costa & McCrae, 1980). In contrast, psychological resilience is context-dependent, situational, and temporal (Förster & Duchek, 2017). Acknowledging this, it is crucial to recognize that resilience strategies can be adapted over time to new information and changing conditions, rendering resilience a dynamic process (Connor & Davidson, 2003; Fisher et al., 2019).

## 5. Conclusion and Suggestions

According to the results of this study, positive personality traits predict resilience at a moderate level. Simultaneously, resilience predicts hope at a moderate level. Additionally, positive personality traits predict hope at a high level. Finally, resilience plays a significant role in bridging personality traits and hope, serving as a buffer to protect both physical and psychological well-being. Therefore, it is important for students to be aware of their personality traits and be encouraged to develop or effectively utilize positive personality traits. Educational institutions and educators should be aware of individual differences arising from personality factors. Students can be encouraged to use resilience-enhancing strategies to progress successfully in their education and daily lives, even in the face of challenges. Training on the use of these strategies can be provided, and support can be extended to students. A hope model for emerging adults has been proposed in this study. Programs designed in a quasi-experimental design can be prepared by mental health professionals to increase the hope levels of emerging adults. The dimensions of the model obtained in this study (positive personality traits and psychological resilience) can be used as activities within the content of these programs.

In future research, it is advisable to incorporate situational or behavioral factors to examine their correlation with resilience. The research design of future studies can encompass additional variables, such as age, education, and exposure to significant life adversity. Moreover, qualitative studies can be designed to elucidate the resilience strategies employed by individuals demonstrating high levels of psychological resilience.

When evaluating the findings of this study, there are certain limitations that need to be taken into consideration. Firstly, the research is a cross-sectional study, and the data were collected at a specific period in a state university in Turkey. Another limitation is that the participants consist of university students aged between 18-23 who are in the emerging adulthood stage. The third limitation is that the research data were obtained through Google Forms based on the participants' self-reports. The requirement for participants to respond to a total of 58 items across three separate scales can be considered a factor that may lead to a decrease in response quality. Accordingly, participants responding to a large number of items may experience survey fatigue, leading to careless responses, intentional misreporting, difficulty making decisions between items, or altering their answers to present themselves more favorably according to social norms (Akbulut et al., 2023). For the results of the study to be more generalizable, a broader and more diverse sample is required. Lastly, the study group is limited to individuals without psychiatric diagnoses. In future research, the relationship between these variables can be examined with individuals who have experienced trauma, or the impact of different psychological characteristics on these variables can be explored.

**Author contributions:** Each author made an equal contribution to the current study and has read and given their approval to the article's final published version.

**Declaration of interest:** The authors declared that there were no potential conflicts of interest.

**Data availability:** The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

**Ethical statement:** This study has been conducted in accordance with the Declaration of Helsinki (1964 version). Informed consent was obtained from all participants, and their confidentiality and anonymity were ensured.

**Funding:** No funding source is reported for this study.

## References

- Akbulut, Y., Saykılı, A., Öztürk, A., & Bozkurt, A. (2023). What if it's all an illusion? to what extent can we rely on self-reported data in open, online, and distance education systems?. *International Review of Research in Open and Distributed Learning*, 24(3), 1-17. <https://doi.org/10.19173/irrodl.v24i3.7321>
- Alhija, F. N. A., & Wisenbaker, J. (2006). A Monte Carlo study investigating the impact of item parceling strategies on parameter estimates and their standard errors in CFA. *Structural Equation Modeling: A Multidisciplinary Journal*, 13(2), 204-228. <https://doi.org/10.1207/s15328007sem130>
- Alnaçık, E., Of, M., Balkaş, J., Tülemmez, S., Mirzayev, M., & Alfarrar, H. (2021). The effects of university students' psychological resilience and hopelessness on career future perceptions during the pandemic process. *Business & Management Studies: An International Journal*, 9(1), 248-266. <https://doi.org/10.15295/bmij.v9i1.1757>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Atak, H., & Çok, F. (2010). A new period in human life: Emerging adulthood. *Journal of Childhood and Adolescence Mental Health*, 17(1), 39-50.
- Backmann, J., Weiss, M., Schippers, M. C., & Hoegl, M. (2019). Personality factors, student resiliency, and the moderating role of achievement values in study progress. *Learning and Individual Differences*, 72, 39-48. <https://doi.org/10.1016/j.lindif.2019.04.004>
- Bajaj, B., Khoury, B., & Sengupta, S. (2022). Resilience and Stress as Mediators in the Relationship of Mindfulness and Happiness. *Frontiers in Psychology*, 13, 771263. <https://doi.org/10.3389/fpsyg.2022.771263>
- Benet-Martínez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analysis of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729-750. <https://doi.org/10.1037/0022-3514.75.3.729>
- Beutel, M. E., Glaesmer, H., Decker, O., Fischbeck, S., & Brähler, E. (2009). Life satisfaction, distress, and resiliency across the life span of women. *Menopause*, 16(6), 1132-1138. <https://doi.org/10.1097/gme.0b013e3181a857f8>
- Block, J., & Kremen, A. M. (1996). IQ and ego-resiliency: conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology*, 70(2), 349. <https://doi.org/10.1037/0022-3514.70.2.349>
- Boland, A., & Cappeliez, P. (1997). Optimism and neuroticism as predictors of coping and adaptation in older women. *Personality and Individual Differences*, 22(6), 909-919. [https://doi.org/10.1016/S0191-8869\(96\)00251-6](https://doi.org/10.1016/S0191-8869(96)00251-6)
- Bonanno, G.A., Westphal, M. & Mancini, A.D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7, 511-535. <https://doi.org/10.1146/annurev-clinpsy-032210-104526>
- Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy*, 44(4), 585-599. <https://doi.org/10.1016/j.brat.2005.05.001>
- Chioqueta, A. P., & Stiles, T. C. (2005). Personality traits and the development of depression, hopelessness, and suicide ideation. *Personality and Individual Differences*, 38(6), 1283-1291. <https://doi.org/10.1016/j.paid.2004.08.010>
- Cloninger, C.R. & Zohar, A.H. (2011). Personality and the perception of health and happiness. *Journal of Affective Disorders*, 128, 24-32. <https://doi.org/10.1016/j.jad.2010.06.012>
- Connor, K.M., & Davidson, J.R.T. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, 18, 76-82. <https://doi.org/10.1002/da.10113>
- Connor-Smith, J. K., & Flachsbart, C. (2007). Relations between personality and coping: a meta-analysis. *Journal of Personality and Social Psychology*, 93(6), 1080-1107. <https://doi.org/10.1037/0022-3514.93.6.1080>
- Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology*, 38(4), 668-678. <https://doi.org/10.1037/0022-3514.38.4.668>
- Di Fabio, A., Palazzeschi, L., Bucci, O., Guazzini, A., Burgassi, C., & Pesce, E. (2018). Personality traits and positive resources of workers for sustainable development: Is emotional intelligence a mediator for optimism and hope?. *Sustainability*, 10(10), 3422. <https://doi.org/10.3390/su10103422>



- Doğan, T. (2015). Turkish version of the short resilience scale: Validity and reliability study. *The Journal of Happiness & Well-Being* 3(1), 93-102.
- Ercan, H. (2017). The relationship between resilience and the big five personality traits in emerging adulthood. *Eurasian Journal of Educational Research*, 17(70), 83-103. <https://doi.org/10.14689/ejer.2017.70.5>
- Färber, F., & Rosendahl, J. (2020). Trait resilience and mental health in older adults: A meta-analytic review. *Personality and Mental Health*, 14(4), 361-375. <https://doi.org/10.1002/pmh.1490>
- Fisher, D. M., Ragsdale, J. M., & Fisher, E. C. (2019). The importance of definitional and temporal issues in the study of resilience. *Applied Psychology*, 68(4), 583-620. <https://doi.org/10.1111/apps.12162>
- Förster, C., & Duchek, S. (2017). What makes leaders resilient? An exploratory interview study. *German Journal of Human Resource Management*, 31(4), 281-306. <https://doi.org/10.1177/239700221770940>
- Gillespie, C. F., Phifer, J., Bradley, B., & Ressler, K. J. (2009). Risk and resilience: genetic and environmental influences on development of the stress response. *Depression and Anxiety*, 26(11), 984-992. <https://doi.org/10.1002/da.20605>
- Gökler, R., & Taştan, N. (2018). Examining the relationship between teachers' personality traits and school academic optimism. *Gazi University Journal of Gazi Education Faculty*, 38(1), 333-358. <https://dergipark.org.tr/en/download/article-file/462749>
- Gooding, P.A., Hurst, A., Johnson, J. & Tarrrier, N. (2012). Psychological resilience in young and older adults. *International Journal of Geriatric Psychiatry*, 27, 262-270. <https://doi.org/10.1002/gps.2712>
- Halama, P. (2010). Hope as a mediator between personality traits and life satisfaction. *Studia Psychologica*, 52(4), 309-314.
- Halama, P., & Dedova, M. (2007). Meaning in life and hope as predictors of positive mental health: Do they explain residual variance not predicted by personality traits? *Studia Psychologica*, 49(3), 191-200.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Kalaycı, Ş. (2016). *SPSS applied multivariate statistical techniques*. Asil Publishing.
- Kalisch, R., Baker, D.G., Basten, U. et al. (2017). The resilience framework as a strategy to combat stress-related disorders. *Nature Human Behaviour*, 1, 784-790. <https://doi.org/10.1038/s41562-017-0200-8>
- Karataş, Z., & Çelikkaleli, Ö. (2018). Suicide probability in emerging adulthood: an analysis in terms of coping with stress, anger and gender. *Mersin University Journal of the Faculty of Education*, 14(1), 450-462. I: <http://dx.doi.org/10.17860/mersinefd.402052>
- Karataş, Z., & Tagay, Ö. (2021). The relationships between resilience of the adults affected by the covid pandemic in Turkey and Covid-19 fear, meaning in life, life satisfaction, intolerance of uncertainty and hope. *Personality and Individual Differences*, 172, 110592. <https://doi.org/10.1016/j.paid.2020.110592>
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford Publications.
- McCrae, R. R., & John, O. P. (1992). Introduction to the five-factor model and its applications. *Journal of Personality*, 60, 175-215. <https://doi.org/10.1111/j.1467-6494.1992.tb00970.x>
- McDonnell, S., & Semkovska, M. (2020). Resilience as mediator between extraversion, neuroticism, and depressive symptoms in university students. *Journal of Positive Psychology and Wellbeing*, 4(1), 26-40.
- Nemati, S., Shojaeian, N., Deetjen-Ruiz, R., Kaurav, R. P., Badri, R., & Khani, Z. (2022). Resilience, attachment to God, and hope in mothers of children with a specific learning disability. *Journal of Psychiatric Nursing*, 13(2), 163-167. <https://doi.org/10.14744/phd.2022.15013>
- Nieto, M., Visier, M. E., Silvestre, I. N., Navarro, B., Serrano, J. P., & Martínez-Vizcaíno, V. (2023). Relation between resilience and personality traits: The role of hopelessness and age. *Scandinavian Journal of Psychology*, 64(1), 53-59. <https://doi.org/10.1111/sjop.12866>
- Prince-Embury, S. (2012). The ego-resiliency scale by Block and Kremen (1996) and trait ego-resiliency. In S. Prince-Embury, & D. Saklofske (Eds.), *Resilience in children, adolescents, and adults: translating research into practice* (pp. 135-138). Springer. [https://doi.org/10.1007/978-1-4614-4939-3\\_9](https://doi.org/10.1007/978-1-4614-4939-3_9)
- Rostami, M., Ahmadboukani, S., & Saleh Manijeh, H. (2022). Big five personality traits and predicting mental health among Iranian older adults. *Gerontology and Geriatric Medicine*, 2022, 8. <https://doi.org/10.1177/2333721422113236>
- Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review*, 4(1), 30-44. [https://doi.org/10.1207/S15327957PSPR0401\\_4](https://doi.org/10.1207/S15327957PSPR0401_4)
- Sapanci, A., & Akkaya, G. (2022). The mediating role of resilience and personality traits in the relationship between social isolation and psychological well-being in the COVID-19 pandemic. *International Journal of Psychology and Educational Studies*, 9(2), 462-478. <https://doi.org/10.52380/ijpes.2022.9.2.724>

- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of fit measures. *Methods of Psychological Research Online*, 8(2), 23-74. <http://www.mpr-online.de>
- Senger, A. R., McGrew, S. J., Gallagher, M. W., & Vujanovic, A. (2023). Associations of resilience and hope with mental and physical health among firefighters. *Journal of Clinical Psychology*, 77(9), 2124-2136. <https://doi.org/10.1002/jclp.23534>
- Shiner, R. L., & Masten, A. S. (2012). Childhood personality as a harbinger of competence and resilience in adulthood. *Development and psychopathology*, 24(2), 507-528. <https://doi.org/10.1017/S0954579412000120>
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422- 445. <https://doi.org/10.1037/1082-989X.7.4.422>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Jennifer Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15, 194-200. <https://doi.org/10.1080/10705500802222972>
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570-585. <https://doi.org/10.1037/0022-3514.60.4.570>
- Sümer, N., & Sümer, H. C. (2005). *Five factor personality traits scale*. Unpublished manuscript.
- Tarhan, S., & Bacanlı, H. (2015). Adaptation of dispositional hope scale into Turkish: Validity and reliability study. *The Journal of Happiness & Well-Being*, 3(1), 1-14. [https://toad.halileksi.net/sites/default/files/pdf/surekli-umut-olcegi-toad\\_0.pdf](https://toad.halileksi.net/sites/default/files/pdf/surekli-umut-olcegi-toad_0.pdf)
- Ungar, M. (2013). Resilience, trauma, context, and culture. *Trauma, Violence, & Abuse*, 14(3), 255-266. <https://doi.org/10.1177/1524838013487805>
- Wei, W., & Taormina, R. J. (2014). A new multidimensional measure of personal resilience and its use: Chinese nurse resilience, organizational socialization and career success. *Nursing Inquiry*, 21(4), 346-357. <https://doi.org/10.1111/nin.12067>
- Werner, E. E. (1995). Resilience in development. *Current Directions in Psychological Science*, 4(3), 81-85. <https://doi.org/10.1111/1467-8721.ep10772327>
- Willey, B., Mimmack, K., Gagliardi, G., Dossett, M.L., Wang, S., Udeogu, O.J., Donovan, N. J., Gatchel, J. R., Quiroz, Y. T., Amariglio, R., Liu, C. H., Hyun, S., Eltohamy, A., Rentz, D., Sperling, R. A., Marshall, G. A., & Vannini, P. (2022). Racial and socioeconomic status differences in stress, posttraumatic growth, and mental health in an older adult cohort during the COVID-19 pandemic. *The Lancet*, 45, 101343. <https://doi.org/10.1016/j.eclinm.2022.101343>
- Windle, G. (2011). What is resilience? A review and concept analysis. *Reviews in Clinical Gerontology*, 21(2), 152-169. <https://doi.org/10.1017/S0959259810000420>
- Zhu, Y., Zhang, L., Zhou, X., Li, C. & Yang, D. (2021). The impact of social distancing during COVID-19: A conditional process model of negative emotions, alienation, affective disorders, and post-traumatic stress disorder. *Journal of Affective Disorders*, 281, 131-137. <https://doi.org/10.1016/j.jad.2020.12.004>