



# The Mediating Role of Gratitude in the Relationship between Self-Efficacy and Psychological Resilience in Elderly Individuals: The Case of Malatya

## *Yaşlı Bireylerde Öz Yeterlik ve Psikolojik Sağlamlık Arasındaki İlişkide Minnettarlığın Aracı Rolü: Malatya İli Örneği*

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### ABSTRACT

The old-age period can be seen as an important experience point in the psychological resilience process. In this sense, the high levels of gratitude and self-efficacy of elderly individuals increase their psychological resilience. This study aimed to examine the gratitude, self-efficacy, and psychological resilience levels of elderly individuals. In addition, the study investigated whether the variables differ according to gender. 78 female (39%) and 122 male (61%) elderly individuals participated in the study. Brief Psychological Resilience Scale (BPRS), General Self-Efficacy Scale, and Gratitude Scales were applied to 200 participants in the Elderly Care Center. In this analysis using a relational screening model, the mediator role analysis of Baron and Kenny was performed to determine the mediator effect of life satisfaction together with a t-test. The findings of the study showed that there is a positive relationship between self-efficacy, gratitude, and psychological resilience. The gratitude was determined to have a mediating role in the relationship between the participants' self-efficacy and psychological resilience. Accordingly, developing the gratitude and self-efficacy skills of the elderly people in elderly care centers or carrying out activities related to this may be beneficial. Thus, it would be appropriate to conduct programs that focus more on self-efficacy and gratitude as two important conditions for preserving the psychological resilience of the elderly.

**Keywords:** Gratitude, positive psychology, self-efficacy, psychological resilience, old age



## Öz

Yaşlılık dönemi, psikolojik sağlamlık sürecinde önemli bir tecrübe noktası olarak görülebilmektedir. Bu anlamda yaşlı bireylerin minnettarlık ve öz yetkinlik düzeylerinin yüksek olması sağlamlıklarını da artırmaktadır. Bu çalışmada yaşlı bireylerin minnettarlık, öz yetkinlik ve psikolojik sağlamlık düzeylerinin incelenmesi amaçlanmıştır. Ayrıca değişkenlerin cinsiyete göre farklılık gösterip göstermediği araştırılmıştır. Araştırmaya 78 kadın (%39) 122 erkek (%61) yaşlı birey katılmıştır. Yaşlı Bakım Merkezi'nde bulunan 200 katılımcıya Kısa Psikolojik Sağlamlık Ölçeği, Genel Öz yeterlik Ölçeği, Minnettarlık Ölçekleri uygulanmıştır. İlişkisel tarama modelinin kullanıldığı bu analizde, t-testi ile birlikte yaşam doyumunun aracı etkisini belirlemek için Baron ve Kenny'nin aracı rol analizi yapılmıştır. Bu araştırmada

bulgulara bakıldığında öz yeterlik ile minnettarlık ve psikolojik sağlamlık arasında pozitif yönde ilişki olduğu görülmektedir. Katılımcıların öz yeterlik ile psikolojik sağlamlık düzeyleri arasındaki ilişkide minnettarlığın aracı role sahip olduğu tespit edilmiştir. Buna göre yaşlı bakım merkezlerinde bulunan yaşlı bireylerin minnettarlık ve öz yeterlik becerilerinin geliştirilmesi veya buna yönelik etkinliklerin yapılması faydalı olabilir. Sonuç olarak, yaşlıların psikolojik sağlamlıklarını koruyabilmenin iki önemli koşulu olarak öz yeterlilik ve minnettarlık üzerinde daha fazla yoğunlaşan programların yapılmasının uygun olacağı söylenebilir.

**Anahtar Kelimeler:** Minnettarlık, pozitif psikoloji, öz yeterlilik, psikolojik sağlamlık, yaşlılık

## INTRODUCTION

Scientific studies on aging have basically investigated the possibilities and means of the extension of life and then continued within the jurisdiction of science. For this reason, the first aging theories that have been developed have generally been biologically and physiologically based. The science of gerontology has developed due to the traditional attitude in the West, and today it is considered among the auxiliary sciences to medical science. However, the origins of the causes of individual behavior require an understanding of all biological, psychological, and sociological processes.

Today, the increase in the elderly population that has occurred due to the development of countries has caused the issue of healthy aging to become more important both physically and psychologically. The work areas of health psychology make the relationship between an individual's physical health and psychological health more evident day by day. In this sense, psychological health problems, which inevitably occur with old age, and physical diseases caused by psychological collapse continue to be addressed in health psychology. These are also associated with chronic diseases and disabilities experienced during old age. The expression "health of the elderly" does not refer solely to physical health; on the contrary, other aspects (high morale, being peaceful, enjoying life, etc.) have mostly been evaluated in the psychological/mental health dimension. These are in line with the World Health Organization's definition of health, which includes physical, psychological, and social well-being, and which reflects the whole

person. In addition, situations such as performing daily life activities, using medications, an increased need for hospitalization, changing home and environmental regulations, and a lack of social support negatively affect older people physically and psychologically. Therefore, preventing the negative situations that occur psychologically and physically in elderly important people plays an important role. As time moves on, it is seen that there is a change in every field. One of the areas where the change is clearly felt is aging and elderly communication. Since the beginning of humankind, there have been changes in the life span of human beings. Statistical data shows that the elderly population in our world is gradually increasing. Furthermore, it turns out that the proportion of elderly people in society will continue to increase in the coming years. With the increase in the elderly population, communication with the elderly has become an important issue. The studies on aging in the literature show that the issue is generally addressed by considering its sociological and psychological dimensions. Rapid population growth, industrialization and urbanization, the transformation of the extended family (in addition to adult parents and children, parents have one or both of their own parents living with them) into the nuclear family ( husband, wife and unmarried children in one household) in modern societies due to internal and external migration, the existence of economic problems, women's participation in working life, the shrinkage of housing as a result of the spread of the nuclear family, the incapacity of the elderly to live on their own, perspectives on aging, disordered communication between generations, health deterioration, and addiction negatively affect the lives of the elderly (Bahar, Tutkun & Sertbaş, 2005, pp. 27-28; Ceyhan, 2005, pp. 35-38).

It is possible to consider the services given to the elderly in Turkish society in two periods: before and after the founding of the Republic. The feelings of love and compassion rooted in Turkish culture have made the rights of children and the elderly the focus of family behavior. At the time when Turks had shamanistic beliefs, shamans were often designated as such due to their age and experience. These shamans were influential people in the spiritual life of the society. During the Oghuz period, there was great devotion and respect for elders (Saygun & Çakmak, 2004, p. 532). Human life is examined in terms of developmental stages. The first stage of life before reaching adulthood is the period of youth. Youth is a period of continuous development and growth that includes the physiological and biological periods of infancy, childhood, and adolescence. The realization of the socialization process takes place when environmental conditions bring individuals to an adult state in all aspects. The second period, the middle age stage, is the period when the person is most biologically

productive rather than social. In other words, individuals in this period ensure that their lives are balanced by applying the gains obtained through socialization. The third period is the old age period. In the old age period, individuals experience a decrease in the social roles they had previously assumed in terms of personal and social expectations (Canatan, 2008, p. 59). Old age is an inevitable process seen in all living things, in which physiological and spiritual changes occur in conjunction with their environmental, cultural, and genetic structure and follow development and maturation in the life process (Emiroğlu, 1995, p. 84). Old age includes a process in which individuals mature within their own psychological, sociocultural, and historical context. In this process, they can mature as much as they can recover (Deniz, 2017, p. 67). In addition, limited interpersonal communication with inhibited feelings and thoughts make it difficult for elderly individuals to feel psychologically well. It is important for the elderly to prepare for old age and to strengthen themselves to overcome the difficulties and problems they will experience during this time. As in all age periods, the concept of psychological resilience has taken its place among the subjects studied in old age. Psychological resilience comes from the Latin word *resilience*. This concept corresponds to the concept of *resilire*, which is to go back (to return to the old state) or to stretch. Psychological resilience can be defined as the individual's struggle under adverse conditions and, in a sense, turning back and adapting to life (Kumpfer, 1999, pp. 193-195; Masten, Gewirtz & Abigail, 2006, pp. 2-3). One of the most important determinants of psychological resilience is the presence of at least one risk factor in an individual's life, such as poverty, earthquake, and illness. Risk factors are defined as the reason why difficult experiences are experienced in youth or the factors that can affect the contamination of these experiences (Kirby & Fraser, 1997, pp. 57-159). There should also be a protective factor (emotional intelligence, social support, humor, etc.) that should equip the individual to face this risk factor (Masten & Coatsworth, 1998, p. 215). In other words, psychological resilience studies state that a positive outcome or an outcome that contributes to functionality must be defined together with risk factors and protective factors (Masten, 2001, pp. 231-233). In the studies on this subject in the literature, the factors that are generally regarded as positive results are divided into two. The first of these is the absence of any psychopathology (Radke-Yarrowe & Brown, 1993). The second is the emergence of a situation that can be considered positive, such as social competence (Masten et al., 1999, pp. 147-149). In this sense, psychological resilience is seen as a process that occurs with the existing conditions and experiences of the individual (Meredith, Sherbourne & Gaillot, 2011, pp. 9-11). Perhaps the most significant handicap of psychological resilience studies is that psychological resilience

was studied only in certain sample groups. The least studied group to date is the elderly (Gooding, Hurst, Johnson & TARRIER, 2012, p. 265).

Self-efficacy is defined as the competencies that enable a person to establish control over the events that affect his / her own life (Bandura, 1999, p. 203). According to Bandura, there are several factors that affect the development of self-efficacy perception. These factors include individuals' past experiences, modeling, support of the environment, and psychological and physiological conditions. At the same time, individuals with high self-efficacy use effective coping strategies, while those with low levels use ineffective passive coping strategies (Compas, Campbell, Robinson & Rodriguez, 2009, pp. 463-465). The experiences that individuals develop in terms of success and failure pave the way for self-efficacy to become a personality trait (Choi, 2004, p. 193). According to Bandura, the stronger the belief, the more social, successful, and healthy individuals will be (Maddux, 1995, p. 38; Jerusalem & Schwarzer, 1992, p. 205; Schwarzer & Jerusalem, 1994, pp. 202-204; Wang & Liu, 2000, pp. 233-236). Interpersonal communication is considered important for elderly individuals to adapt to old age. In this case, adequate communication is seen to affect the self-efficacy skill positively. Self-efficacy appears to be an important determinant in initiating and maintaining behaviors that improve the health of the elderly. In addition to this, it can lead to practices to prevent diseases and improve health, which will ensure that the elderly have a better quality of life and receive life satisfaction. Since, there is limited research on elderly individuals (Altıntaş et al, 2012, p.53) the examination of self-efficacy in terms of geriatric research will contribute to the literature.

Another concept of positive psychology that can be associated with psychological resilience in the elderly is gratitude. The concept is expressed as "gratitude" in English. It consists of the words "Gratia," meaning goodness in Latin, and "gratus," meaning pleasing. In this sense, it means being kind, being generous, giving and receiving gifts, or receiving without giving anything (Emmons, 2007, p. 67). The studies regarding the field indicate that there are two stages of gratitude. The first stage is to accept something positive materially and spiritually in the individual's life, and the second stage is knowing that one is doing it sincerely, without expecting any gain as a result of the materially and spiritually positive thing that has been accepted. Briefly, it is the feeling we feel when we perceive ourselves as the recipient of a gift deliberately given by others (Emmons, 2007, p. 65; Watkins, 2014, pp. 41-54). In this sense, it has been found that individuals with high levels of gratitude show more gratitude in their daily lives and

have a firmer belief in life (McCullough, Emmons & Tsang, 2002, pp. 251- 253; Watkins, 2014, pp. 56-62). Although there is some confusion about whether there are differences in gratitude with respect to ages, it was considered that there may be a link (Algoe, 2012, p. 221; Algoe et al., 2010, p. 465; Watkins, 2004, p. 59). For example, the Socio-Emotional Selectivity Theory suggests that as people age, they increasingly realize that time is limited (Carstensen, Isaacowitz & Charles, 1999, p. 173). Older people express these preferences by investing in social interactions with close, important people and maintaining sincere, healthy relationships. Individuals with a limited time perspective prefer to spend more time with close relationship partners and less time with those with whom they have less acquaintance (Fung, Carstensen & Lutz, 1999, pp. 599-601). Socio-Emotional Selectivity Theory is often used to explain why older adults tend to make more positive evaluations of their lives and emotional states (Isaacowitz, Wadlinger, Goren & Wilson, 2006, p. 513). This positivity effect also points out that older individuals pay more attention to and remember more valued stimuli than younger individuals and that older individuals invest more in social relationships that provide and maintain more well-being (Carstensen & Mikels, 2005, p. 119; Mather & Carstensen, 2005, p. 499; Reed & Carstensen, 2012, pp. 3-6). On the other hand, due to disorder between the generations, the distance between the young and the elderly population is widening a little more. While the younger generation does not complain about this disconnection of social communication and continues their lives without being aware of their losses, the older generation cannot keep up with innovation. They take shelter in small living spaces by breaking away from metropolitan life, and become depressed as a result of this loneliness. When this social miscommunication comes together with the physical difficulties of our elderly people, it pushes them into great loneliness. Loneliness also negatively affects the psychological resilience levels of our elderly individuals. Therefore, old age can be seen as an important experience point in the psychological resilience process (Onur, 2000, pp. 102-103). People's expression of their gratitude causes change in individuals. In this case, gratitude is considered to be a feeling that strengthens social relationships and interpersonal communication. At the same time, the perception of self-efficacy should be taken into consideration as an important variable when planning and attempting to enable elderly people to participate in health-enhancing activities and to provide healthy communication with elderly people (Kelley, Zyzanski & Alemagno, 1991, p. 313). In this sense, it is seen that high gratitude and self-efficacy levels in elderly individuals will increase their resilience.

## AIM AND METHODOLOGY

Scientific studies on aging have basically investigated the possibilities and means of extension of lifetimes for a long time. Although aging can be delayed for human beings, it is inevitable. Aging is a complex and multidimensional stage of development that can be studied from many different angles. Psychological conditions and / or other disorders affecting young adults also apply to older adults. The psychological problems of the elderly may be caused by their experiences at young ages. The elderly might also experience developmental stress due to aging, such as loss of spouse and relatives, retirement, menopause/andropause, social isolation, interpersonal communication problems, chronic illnesses, or dependency. There may also be new problems caused by the fear of death. Psychological problems observed in old age often have multiple causes. In a study, it was determined that worsening of physical health, mental illness, low morale, and difficulties in communication and meeting were some of the factors that cause loneliness. Inability to establish social and emotional bonding causes psychological and emotional problems in the elderly. Based on this, it has been deemed important to improve the psychological resilience of the elderly against these problems. Therefore, this study investigates the mediating role of gratitude in the relationship between self-efficacy and psychological resilience of the elderly. Field texts were searched to make an original contribution and to fill the existing gap in academic writing.

### **Aim**

Mediation examines the relationship between the dependent and independent variables and the relationship between the independent variable and the mediator variable with the dependent variable. It also examines the effects that are not noticeable at first glance in the relationship between the dependent and independent variables. This study aims to examine the gratitude, self-efficacy, and psychological resilience levels of elderly individuals and present a model. When the literature is examined, there is no study in which these variables are handled together. Therefore, the present study aims to offer a solution-oriented perspective to people and organizations working with the elderly.

This study aims to reveal the effect of self-efficacy and gratitude on the emotional state of the individual as cognitive factors affecting psychological resilience. In other

words, it is the examination of the relationships among the variables and the explanation of the concept of psychological resilience with a model that includes the factors in question. In the literature, it was assumed that the variables of self-efficacy and gratitude, which affect general well-being, can guide a person's emotions. It has been hypothesized that individuals with cognitive self-regulation skills who are forgiving and grateful for their experiences will emerge from negative events with positive results. A model has been proposed that determines the role of mediator in the relationships between self-efficacy, gratitude, and psychological resilience. In this sense, the most studied period in Turkey is childhood and adolescence. Therefore, it is considered that this study will contribute to the literature and shed light on other studies.

## **Method**

This section includes the research model, data collection tools, and data analysis. In the present study, a quantitative research model was used. At the same time, a Personal Information Form, Brief Psychological Resilience Scale, General Self-Efficacy Scale, and Gratitude Scale were used for data collection. In addition, a Sobel test and mediator role analysis of Baron and Kenny were conducted to determine the mediator effect.

### **Research model**

In the research, the survey model, which is one of the general survey model types, was used. This model aims to describe the existence of change between two or more than two variables and the level of change. (Karasar, 2005, pp. 98-102). In this study, the options for the psychological resilience levels of the elderly, self-efficacy, and gratitude are described.

### **Participants**

The sample of the research was formed by using the convenient sampling method (Büyüköztürk, Kılıç, Akgün, Karadeniz & Demirel, 2009, pp. 45-50). It contains 78 women (39%) and 122 men (61%) in Malatya, where the researchers are located, and attention was paid to COVID-19 rules. The data was obtained from a total of 200 participants. Descriptive statistics for the research group are shown in Table 1. In Table 1, 39% of the elderly individuals included in the study are women and 61% are men. 70% are aged 65-74 years, 25% are aged 75-84 years, and 5% are 85 and over.

**Table 1:** Descriptive statistics for elderly people

Variables		n	%
Gender	Female	78	39
	Male	122	61
Age	65-74	140	70
	75-84	50	25
	85 and older	10	5

## Data Collection Tools

The personal information form consists of the Brief Psychological Resilience Scale, the General Self-Efficacy Scale, and the Gratitude Scale.

**Personal Information Form:** This form contains information about the age and gender of older adults.

**Brief Psychological Resilience Scale:** Smith et al. (2008) developed this scale in order to measure the psychological resilience of individuals (pp. 196). The adaptation of the scale to Turkish was carried out by Doğan (2015). Exploratory factor analysis was performed to determine the construct validity of the scale (pp. 96). As a result of the analysis, a single factor structure explaining 61%, 61%, 57%, and 67% of the total variance was obtained for four different sample groups, respectively. Factor loadings for scale items were found to vary between .68 and .91. The reliability of the scale was calculated by internal consistency and test-retest methods. Accordingly, the internal consistency reliability coefficient was found to vary between .80 and .91. The test-retest reliability coefficient was found between .62 and .69. In this study, the reliability coefficient was determined as .66. BPRS is a 5-point Likert type, 6-item, self-report style measurement tool. Higher scores on the scale indicate high psychological resilience.

The General Self-Efficacy Scale is a scale developed by Schwarzer and Jerusalem (1995). The scale consists of six items aimed at measuring general self-efficacy (p. 34). The adaptation study of the scale into Turkish was carried out by Aypay (2010). The research was conducted on a total of 693 students from three different universities. Basic Components Analysis and Varimax for the construct validity of the scale were translated into Turkish with translation-retranslation and Rotation techniques. As a result of the component analysis, a two-component structure with eigenvalues greater than one emerged. The Stress Coping Scale and Rosenberg Self-Esteem Scale were used for the

criterion validity of the GOES. Alpha internal consistency coefficients for scale components are .79 and .63. The alpha coefficient calculated in total is .83. The reliability coefficient made in this research was determined as .68. The test-retest reliability coefficient of the scale is ( $r = .80, p < .001$ ). Scoring of the General Self-Efficacy Scale was according to the following scale: 1- Totally Incorrect and 4- Completely Correct. High scores indicate high general self-efficacy and low scores indicate low general self-efficacy.

**Gratitude Scale:** The Gratitude Scale is a scale developed by McCullough et al. (2002). The scale consists of a total of six items to measure gratitude. The adaptation study of the scale into Turkish was carried out by Yüksel and Oğuz-Duran (2012). Accordingly, a measuring tool consisting of 6 items and explaining 53.27% of the total variance was obtained. The factor loads of the scale items are between .52 and .85; item-total score correlations were between .59 and .83. The reliability coefficient of the scale is .77; the correlation coefficient calculated for the test-retest reliability study was reported as .66 (Oğuz Duran & Tan, 2013). In this study, the reliability coefficient was found to be .72. Scoring of the Gratitude Scale was as follows; 1- Absolutely Disagree and 7- Absolutely Agree. High scores indicate high gratitude and low scores indicate low gratitude.

## Operation

For data analysis, T-test analysis was used to test the difference in psychological resilience, self-efficacy, and gender gratitude. In many studies, the Sobel test, thus the Bootstrap Confidence Interval, is determined to measure the significance of the effect of the amount achieved instead of stepwise regression. Bootstrapping has become a popular technique used to test indirect and mediating effects in recent years. With this technique, a mini rehearsal of the universe is made by making repetitions over the existing sample. Simulations have shown that this technique is much more powerful than other techniques, such as the Sobel Test (Preacher & Kelley, 2011, pp. 99-103). In the Sobel Test, the significance is determined by the z score coefficient; this score must be greater than 1.96, and the p-value must be significant (Frazier, Tix, & Baron, 2004). Indirect effects can be calculated from samples produced with the bootstrapping technique, and sample distributions that are verified can be produced. Calculations such as confidence interval coefficients, p-value, or standard error can be produced from these distributions. According to Baron and Kenny (1986), there should be a significant effect on the independent and mediator variables and then on the mediator and dependent variables (pp. 1177-1180). Besides, it is stated that the independent

variable should significantly affect the dependent variable and meet three criteria in analyzing the effect of the mediator variable. When the mediator variable and independent variable are evaluated together in regression analysis after the criteria are met, the effect of the independent variable on the dependent variable should be reduced or become zero. A macro process developed by Hayes (2016) that can be added to the SPSS program was used to evaluate the intermediary variable's effect. The path from the independent variable to the dependent variable, which Hayes mentioned during the creation of the model, is "path c;" the way the independent variable goes to the dependent variable through the mediator variable is the "c1 path;" the path from the independent variable to the mediator variable is named "path a;" and finally, the path from the mediator variable to the dependent variable, is the "b pathway" (Montoya & Hayes, 2017, pp. 13-16). Also, the normality assumption of the data was made by looking at the mode, median, and mean kurtosis, and skewness values. In the present study, the mode, median, and mean values were observed to be close to each other, and the kurtosis and skewness values were between -1, 1 (Büyükoztürk, 2006, p. 87). Simultaneously, the tolerance and VIF values of the data were examined for the multiple connection problem. When tolerance values (tolerance values > 0.2) equal to or greater than VIF 10 ( $VIF \geq 10$ ) are calculated, there is a multiple linear connection problem in the model (Pallant, 2005). The VIF values in the present data set indicated that there is no multiple linear connection problem.

## FINDINGS

The findings of the research are presented in this section. Firstly, descriptive statistics regarding the study variables and the correlation coefficients between these variables are given. Following these statistics, the mediating role of gratitude was determined in the relationship between self-efficacy and psychological resilience levels of elderly individuals within the framework of hypothetical models proposed. Table 2 includes the mean, standard deviation, and correlation values for the variables.

**Table 2:** Average, Standard Deviation and Correlation Values of Scores Obtained from Self-Efficacy, Gratitude and Psychological Resilience Scales

Variables	N	X	Sd	Self-efficacy	Gratitude	Psychological Resilience
Self-efficacy	200	32.50	5.37	1		
Gratitude	200	28.05	4.82	.27*	1	
Psychological Resilience	200	25.40	4.15	.32*	.51*	1

\* $p < .05$

As seen in Table 2, the average score of individuals related to self-efficacy is 32.50. The average score of individuals related to gratitude is 28.05, and the average score of individuals related to psychological resilience is 25.40. Considering the correlation values, there is a positive relationship between self-efficacy, gratitude, and psychological resilience ( $r = .27, p < .05$ ;  $r = .32, p < .05$ ). Also, there is a positive relationship between gratitude and psychological resilience ( $r = .51, p < .05$ ). Table 3 contains the results of the t-test performed to analyze the difference in self-efficacy, gratitude, and psychological resilience by gender.

**Table 3:** t Test Values of Scores Obtained from Self-Efficacy, Gratitude and Psychological Resilience Scale

Variables	Gender	N	X	Sd	t	p
Self-efficacy	Female	78	27.40	7.30	-1.52	.12
	Male	122	28.30	7.80		
Gratitude	Female	78	27.20	6.90	1.90	.23
	Male	122	25.10	6.22		
Psychological Resilience	Female	78	21.15	5.15	1.02	.09
	Male	122	23.02	5.25		

Evaluation of Table 3 shows that although self-efficacy and psychological resilience are in favor of males according to the gender variable, they do not differ significantly ( $t = -1.52; 1.02, p > 0.05$ ). However, although the level of gratitude was against women and in favor of men, no significant difference was found ( $t = -1.90, p > 0.05$ ) between them. Although the level of psychological resilience was high in favor of men, no significant difference was found. The results of the regression analysis performed in order to determine the intermediary relationship are presented in Table 4.

**Table 4:** Mediating Effect of Gratitude Between Self-Efficacy and Psychological Resilience

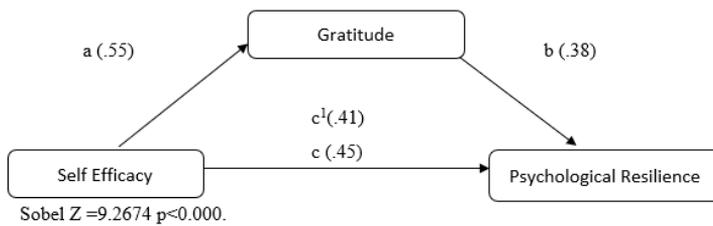
Steps	$\beta$	t	p
1. Step S.E-G R <sup>2</sup> /F	0.55 .23/30.45	9.43	.00*
2. Step S.E-P.R. R <sup>2</sup> /F	0.45 .20/27.34	8.65	.00*
3. Step S.EG.P.R. R <sup>2</sup> /F/Tolerance/VIF	0.41 0.38 .43/34.21/.66/1.56	8.20 7.90	.00* .00*

\* $p < .05$  P.R: Psychological Resilience, S.E: Self-Efficacy, G: Gratitude

When Table 4 is examined, the relations of the variables with self-efficacy are discussed one by one. In the regression equation, the greatest gratitude ( $\beta = .55; p = 0.000$ ) and resilience ( $\beta = .38; p = 0.000$ ) were added, followed by self-efficacy, gratitude, and resilience

( $\beta=.45$ ;  $p=0.000$ ). Therefore, it is seen that the effect between self-efficacy and psychological resilience in the previous step decreases. According to the results seen in Table 4, it was found that the related variables explained 43% of the variance in the relationship between self-efficacy, gratitude, and psychological resilience of the elderly.

Figure 1 presents a model prepared for the mediation relationship. Under the mediator effect of gratitude, it is seen that the ratio of explaining the relationship of the variable decreased from .23 to .20. When the gratitude variable was added, it increased to .38.



**Figure 1:** Model for The Mediating Role of Gratitude between Self-Efficacy and Psychological Resilience

The mediating effect of gratitude in the relationship between self-efficacy and psychological resilience was also examined in Figure 1. The standardized regression coefficient for path a is .55 in the positive direction, and the significance level is  $p < 0.000$ ; The standardized regression coefficient value for path b was .38 on the positive side, and the significance value was  $p < 0.000$ . For the c path, the standardized regression coefficient was .45 in the positive direction, and the significance level was  $p < 0.000$ . In the Sobel Test, the z score is checked for significance. The Z score should be greater than 1.96, and the p-value should be significant. Accordingly, in our study, it is seen that the Sobel z score is high, and the p-value is significant ( $Z = 9.2674$   $p < 0.000$ ). Considering the study's findings, it was determined that all three criteria set by Baron and Kenny were met. In the next step, the mediator variable was added to the model to determine the mediator variable's effect. When the c1 path was examined, it was observed that the regression coefficient value decreased from .45 to .41 in a positive direction and was significant ( $p < 0.000$ ). To test whether this decrease is due to the effect of the mediator variable, the Sobel Test was conducted to reach this result. After this stage, it is necessary to determine the intermediary effect's size by looking at the total effect, direct effect, and indirect effect values. The results are expressed in Table 5.

**Table 5:** Effect of Intermediary Variable

The Relationship Through Gratitude	Total Impact	Direct Impact	Indirect Effect	Bootstrap Confidence Interval BoLLCIBoULCI Tool	Impact Type
Self-Efficacy-Psychological Resilience	.625	.305	.320	0.4564-0.6324	Partial

According to Table 5, it was determined that the direct impact score decreased. Examination of the difference between the total effect and the direct effect indicates that the indirect effect size was 22%. The existence and significance of the indirect effect were analyzed with the Bootstrap confidence interval. The results show that the lower and upper limits were above zero. In this direction, it can be stated that gratitude has a mediating effect on the relationship between self-efficacy and psychological resilience.

## DISCUSSION AND CONCLUSION

Old age, as the last of the developmental periods, determines the individual's emotional world, depending on how the previous periods were passed. It is possible to say that the field of positive psychology is increasingly competent in how much an elderly person can cope with stressful situations and maintain his psychological soundness. Individuals can preserve their psychological resilience by maintaining their level of gratitude and remaining self-sufficient despite the difficulties of life (a chronic or mental illness, substance abuse, etc.), (Park, Peterson & Seligman, 2004, p. 610).

Psychological resilience is defined as maintaining the individual's adaptation and coping skills against the situations that pose a risk in life. The findings obtained in this study support the results of previous research (Arnout & Almoied, 2020, pp. 407-409), confirming the relationship between a high level of gratitude and psychological resilience. Also, the study's findings confirm the model we have put forward that as the level of self-efficacy increases with gratitude, psychological resilience also increases. Considering that difficult life events activate psychological resilience, it can be said that similar results can be encountered not only in the elderly but also in other developmental stages.

As the model shows, gratitude is indirectly an important predictor of the psychological resilience of the elderly. This finding is consistent with the findings of Wood et al. (2008,

pp. 285-286) and Nelson (2009) that gratitude is an important predictor of well-being, protecting the person from facing stress and depression. Emmons and Crumpler (2000, pp. 61-63) and McCullough et al. (2001, pp. 255-258) suggest that gratitude plays a vital role in our emotional world and human relationships. In addition, the findings that gratitude and resilience predict creativity (Arnout & Almoied, 2020, p. 411) support the present study's findings. Thus, it can be concluded that the individual's cognitive evaluations of self-efficacy are also related to psychological resilience.

One of the present study's findings is that there is a positive significant relationship between self-efficacy and psychological resilience. Self-efficacy refers to the perception of the individual's level of coping with situations or difficulties that he/she will encounter later (Luszczynska, Scholz & Schwarzer, 2005, pp. 446-448). In the formation of self-efficacy perception, there are strong beliefs about personal efficacy based on the achievements of the individual and directly shaped by his/her experiences. This positively affects the individual's performance regarding the situations that he/she will encounter later (Bandura, 1994, p. 78). It is known that individuals with a high level of self-efficacy are more successful by showing a high level of performance with the encountered stressors or difficulties; their cognitive capacities improve, and therefore their beliefs about themselves become more positive (Baldwin, Baldwin & Ewald, 2006, pp. 17-21). The basic beliefs of elderly individuals about themselves and others are reflected in the relationship between psychological resilience and personal strength and structural style. Sebuktekin (2018, pp. 57-60) concluded that together with these variables, the age variable predicts post-traumatic growth.

With the introduction of the concept of successful aging into the literature (Bowling, 2007, p. 268), increasing the life satisfaction of the elderly by protecting their physical, psychological, and mental functionality become important. The relationship between enjoying life and happiness in old age (Akgül, 2004, pp. 25-28) is significant. As the self-efficacy and gratitude of the elderly with high psychological resilience increase, it is possible for them to become more socially active and "successful elderly" with high life satisfaction. It is clear that these concepts, which are integrated with positive psychology concepts, will cause us to look more positively towards our future, our elders, and our old age. The threat of withdrawal due to advanced age, dysfunction, and decreased commitment to life causes cognitive stimulation to decline, thus psychological resilience programs can be developed to protect the elderly from these dangers and benefits can be gained by adding self-efficacy and gratitude activities.

In conclusion, thanks to the model tested in this study, it is seen that gratitude has a mediating role between self-efficacy and psychological resilience. This finding makes a significant contribution to the literature on how the concept of psychological resilience, one of the most important concepts of positive psychology, functions in the elderly when performing geriatric services. Bandura (1994) also stated that self-efficacy is a feature acquired later (pp. 75-78). Self-efficacy support systems such as family, relatives, friends, and neighbors ensure that the older people feel stronger and happier, cope with the problems encountered in old age, and develop effective coping skills. In this way, older people can adapt more easily to old age by finding solutions to new life events in old age. The gratitude levels and self-efficacy of the elderly can be handled together in individual or group studies, and better subjective well-being can be achieved. However, in terms of the results' generalizability, it will be beneficial to repeat this study with experimental or mixed designs in different samples.

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