TURKISH PSYCHOLOGICAL COUNSELING AND GUIDANCE JOURNAL
2026, VOL. 16, NO. 82, 704-718

Official Journal of
Turkish Psychological Counseling
and Guidance Association

ISSN: 1302 – 1370, E-ISSN: 2822 – 6569 https://doi.org/10.17066/tpdrd.1976318

RESEARCH ARTICLE

The Mediating Role of Psychological Vulnerability and Grit in the Effect of Childhood Happiness Memories on Subjective Happiness

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ARTICLE HISTORY

Received: 23/06/2026

Accepted: 27/08/2026

KEYWORDS

Childhood happiness memories

Psychological vulnerability

Grit

Subjective happiness

ABSTRACT

Childhood experiences are significantly associated with people's mental health and subjective happiness. This study aims to examine the relationship between Early Memories of Warmth and Safeness and Subjective Happiness by exploring the serial mediating roles of Psychological Vulnerability and Grit. Convenience sampling was used to gather data. A total of 345 volunteer university students from different universities in Türkiye (275 females, 79.7%; 70 males, 20.3%) participated in the study. The participants' mean age was 21.37 years (SD = 4.17). Results of structural equation modeling showed acceptable fit indices [$\chi^2(659) = 1268.935$, $\chi^2/df = 1.94$, RMSEA = .05, SRMR = .05, CFI = .91, TLI = .90]. Mediation analysis using Hayes' PROCESS Macro Model 6 revealed that Psychological Vulnerability and Grit serially mediated the relationship between EMWS and Subjective Happiness. Specifically, higher levels of EMWS were associated with lower Psychological Vulnerability, which, in turn, was associated with higher Grit and Subjective Happiness. The serial indirect association of EMWS with Subjective Happiness via Psychological Vulnerability and Grit was significant (B = 0.0156, BootSE = 0.0090, 95% CI [0.0001, 0.0351]). In addition, the direct association of EMWS with Subjective Happiness was significant (B = 0.2915, SE = 0.0651, 95% CI [0.1636, 0.4195]). These findings suggest that higher levels of EMWS are associated with higher levels of subjective happiness, with this association statistically explained by lower psychological vulnerability and greater grit, highlighting the potential relevance of emotional stability and personal resilience in understanding subjective well-being.

Introduction

A person's emotional health and level of subjective happiness in adulthood are greatly influenced by their childhood experiences. Positive childhood memories have been shown to develop psychological traits that enhance happiness in later life (Layous et al., 2013). Positive emotions in early life expand cognitive and behavioral repertoires, helping people develop long-lasting personal resources such as optimism and resilience,

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according to Fredrickson (2001). Psychological vulnerability, which is typified by sensitivity to stress and negative emotion, may be more common in people who have fewer happy childhood memories. The association between emotional experiences and subjective happiness has been found to be mediated by resilience, which is defined as the ability to recover and adapt effectively in the face of adversity (Kaşıkcı & Peker, 2022). Nagle, Fleck, and Girgis (2026) found that grit plays a mediating role in the relationship between adverse childhood experiences and mental health outcomes, particularly anxiety and depression. Their findings indicated that higher levels of negative childhood experiences were associated with lower levels of grit, which in turn contributed to increased anxiety and depression. Moreover, grit was found to reduce perceived threat, consequently buffering the psychological effects of traumatic childhood experiences. Therefore, it can be suggested that psychological vulnerability and grit may sequentially mediate the relationship between childhood happiness memories and subjective happiness. Building on this logic, the current study looks at these relationships among university students. Because they are in a transitional time of life marked by significant academic, social, and personal problems, university students constitute an especially pertinent group for our study. Students frequently experience increased stress, additional obligations, and the need to develop flexible coping mechanisms during this time (Cheung et al., 2021; Munoz, 2023). Previous research supports conceptualizing psychological vulnerability as an antecedent risk factor that may shape subsequent adaptive psychological processes and well-being. Also, Satici and Uysal (2017) found that psychological vulnerability was significantly associated with subjective happiness through hopelessness; this suggests that higher psychological vulnerability is linked to less favorable psychological states that can impair positive psychological functioning. However, the current literature has focused more on negative childhood experiences and their relationship with psychological difficulties; in contrast, the relationship between positive early emotional experiences, particularly Early Memories of Warmth and Safeness (EMWS), and subjective happiness has been studied to a relatively limited extent. Furthermore, although previous studies have examined psychological vulnerability and grit separately in relation to well-being and mental health outcomes, research addressing these two constructs simultaneously as serial mediators in the relationship between positive early emotional experiences and subjective happiness remains limited. Therefore, this study focuses on this gap by examining the serial mediating roles of psychological vulnerability and grit in the relationship between EMWS and subjective happiness among university students in Türkiye. Thus, the originality of the study lies in integrating positive early emotional experiences, psychological vulnerability, and grit within a single serial mediation model and examining these relationships in a sample of university students in Türkiye. Investigating the mechanisms linking childhood happiness memories, psychological vulnerability, and grit to subjective happiness in this population can provide insights into how early emotional experiences are associated with well-being during a critical developmental period.

Childhood Memories of Happiness and Psychological Vulnerability

Childhood is the stage of human development that comes after infancy. According to developmental psychologists, this phase, which lasts from ages 2 to 11, is when people gain their first life experiences (Clarke & Clarke, 2000). According to Hayne et al. (2015), these encounters and the feelings they arouse linger in people's recollections into later stages of life and can have an impact on later times. One theory is that people who have happy childhood memories grow up to be healthier adults (Richter et al., 2009). Pleasant feelings can be rekindled by recalling happy childhood experiences (Heller et al., 2009). According to clinical research, retrieving and reliving pleasant previous experiences can effectively boost positive affect in the present by reactivating associated positive sentiments (Admon & Pizzagalli, 2015). Positive childhood memories also boost self-esteem (Daníelsdóttir et al., 2024), support stress-coping strategies (Webster, 2022), increase present-moment happiness (Kozan, 2019), and build resilience against negative life events (Gooding et al., 2012). On the other hand, unfavorable self-perceptions and increased psychological vulnerability to life's difficulties might result from adverse childhood experiences, such as sexual or emotional abuse, social isolation, devaluation, and domestic violence (Madigan et al., 2023). According to Mechanic and Tanner (2007), psychological vulnerability is defined as a person's reduced ability to cope with adversity. All people are psychologically vulnerable to some extent, but those who grow up in dysfunctional social situations are considered to be especially vulnerable (Kessler, 1979). Negative childhood experiences can thereby increase psychological vulnerability, making people more vulnerable to pressures throughout their lives (Ingram &

Price, 2010). Empirical findings and theoretical explanations guided the construction of the study's first hypothesis (H_1):

H_1: Childhood memories of happiness are expected to negatively predict psychological vulnerability.

Psychological Vulnerability and Grit

Grit is another idea that has been linked to psychological vulnerability. Grit is described as a person's tenacity and enthusiasm for long-term objectives (Datu et al., 2016). There are two main elements to this architecture (Duckworth & Quinn, 2009). The first dimension relates to a person's consistency of interest, or their ability to stay focused without constantly changing their goals. The individual's persistence of effort is the subject of the second dimension. Research indicates that high-achieving people's greater tolerance for uncontrollable events and their increased determination to pursue their goals are more important underlying factors contributing to their success than their superior intelligence relative to others (Bartone et al., 2013; Duckworth, 2016). When results fall short of expectations or they receive unfavorable feedback from their surroundings, people with grit do not feel stressed, guilty, or hopeless, unlike those with high psychological vulnerability. These people exhibit self-confidence and a steadfast focus on achieving their goals, avoiding disappointment, despair, or goal abandonment (Barlow & Durand, 2013; Duckworth, 2016; McCrae & Costa, 1991). High psychological vulnerability can lead to maladaptive schemas in which people believe that all success depends on approval from others. As a result, in reaction to failure or rejection, they could internalize emotions of inadequacy, worthlessness, or uselessness (Gruebner et al., 2015; Sinclair & Wallston, 2010). In contrast, gritty people find purpose in their lives, retain their sense of worth, learn from their mistakes rather than viewing them as setbacks, and show tenacity in achieving their objectives (Musumari et al., 2018). Considering previous studies and theoretical frameworks, the study established the second hypothesis (H_2):

H_2: Psychological vulnerability is expected to negatively predict grit.

Grit and Subjective Happiness

Subjective happiness is one of the main factors mentioned in the research on grit. Individuals' assessments and feelings about the general quality of their life are referred to as subjective happiness (Lucas & Donnellan, 2007). According to earlier studies, those with lower levels of grit typically report greater levels of suicidal thoughts (Blalock et al., 2015; Kleiman et al., 2013) and depression (Datu et al., 2019; O'Neal et al., 2016). On the other hand, research has shown that people with high levels of grit also report higher subjective happiness (Diener et al., 1999; Disabato et al., 2019; Jin & Kim, 2017), perceive their lives as more meaningful (Kleiman et al., 2013), and generally feel more positive affect (Datu et al., 2019). Individuals with higher levels of grit may be happier than others because they engage in more effective behaviors, thereby achieving more concrete and positive outcomes (Sharkey et al., 2017). An essential point to note here concerns the two distinct dimensions of grit. The consistency of interest dimension has been reported to be negatively associated with happiness (Disabato et al., 2019). A person's mental health may not always benefit from pursuing a single enduring interest—that is, staying persistent in one's endeavors and not giving up on the same objective despite repeated setbacks—because it can lead to repeated failures over time, according to researchers (Credé et al., 2017). On the other hand, it has been discovered that grit's perseverance of effort dimension is positively connected with happiness (Datu et al., 2019). Individuals with high levels of grit tend to maintain their focus on long-term goals even during challenging periods in life. Their perseverance, diligent effort, and persistence in the face of obstacles, along with their stable commitment to their goals, contribute to greater success and, consequently, a higher likelihood of experiencing happiness (Duckworth & Quinn, 2009; Hill & Jackson, 2016). Based on the existing literature and theoretical rationale, the study's third hypothesis (H_3) was developed.

H_3: Grit is expected to positively predict subjective happiness.

Childhood Happiness Memories, Subjective Happiness, Psychological Vulnerability, and Grit

Childhood experiences play a significant role in shaping individuals' emotional well-being and subjective happiness in adulthood. Positive childhood memories are known to foster psychological strengths that contribute to a person's sense of happiness later in life (Layous et al., 2013). Happiness is a crucial part of

human life (Lyubomirsky, 2001), and research in both Western and Eastern cultures indicates that both cultures place importance on happiness (Diener, 2000; Huebner et al., 2006). According to Fredrickson (2001), positive emotions experienced early in life help individuals build enduring personal resources, such as reduced vulnerability and increased optimism, by expanding their cognitive and behavioral repertoires. According to Beck and Haigh (2014), psychological vulnerability encompasses individuals' perceived negative thoughts about others and life events, as well as rigid cognitive functioning. Psychological vulnerability includes susceptibility to stress, anxiety, trauma, and negative life circumstances. However, having positive mental health can act as a protective shield against vulnerability (Kiamarsi & Abolghasemi, 2014). Conversely, individuals with less positive childhood memories may be more prone to psychological vulnerability, characterized by increased susceptibility to stress and negative influences (Nobre et al., 2022). These individuals may experience lower self-confidence, more frequent emotional changes, and greater anxiety, guilt, and hopelessness (Tang et al., 2019). Ultimately, this can lead to a decrease in an individual's subjective happiness. Therefore, reducing psychological vulnerabilities is critical for improving an individual's happiness and overall psychological well-being (Nobre et al., 2022). On the other hand, determination is defined as the capacity to be determined and passionate towards long-term goals, and individuals with high psychological vulnerability may not be able to cope with this situation when life conditions go wrong, maintain a determined stance towards their life goals, and may change their goals (Kannangara et al., 2018). At the same time, research indicates that grit is a source of subjective happiness (e.g., Datu et al., 2016; Kannangara et al., 2018; Salles et al., 2014). Therefore, it can be suggested that psychological vulnerability and grit may sequentially mediate the relationship between childhood happiness memories and subjective happiness. In this context, the current study aims to examine the sequential mediating roles of psychological vulnerability and grit in the relationship between childhood happiness memories and subjective happiness. Building on prior research and theoretical considerations, the study proposed that psychological vulnerability and grit serially mediate the relationship between childhood happiness memories and subjective happiness.

H_4: Psychological vulnerability and grit are expected to serially mediate the relationship between childhood happiness memories and subjective happiness.

The Present Study

Previous research has demonstrated that positive childhood experiences contribute to individuals' emotional well-being and subjective happiness later in life (Layous et al., 2013; Fredrickson, 2001; Kozan, 2019). On the other hand, negative childhood experiences, including emotional coldness, abuse, and neglect, increase psychological vulnerability and lower subjective happiness (Nanni, Uher & Danese, 2012; Uyanık et al., 2019). Even in the face of difficulties, grit has been found to be a crucial psychological resource that promotes tenacity and raises subjective contentment (Datu et al., 2016; Khan & Khan, 2017; Muhammad et al., 2020). Building on these findings, the present study aims to examine the serial mediating roles of psychological vulnerability and grit in the relationship between childhood happiness memories and subjective happiness. Specifically, it is hypothesized that positive childhood memories are associated with lower psychological vulnerability, which in turn is associated with higher grit and higher subjective happiness.

Method

Participants & Procedure

In this research, the researchers adopted convenience sampling. Though there are some concerns about generalizability (Etikan et al., 2016), it is widely adopted due to ease of access, time, and financial constraints, and practicality. In this research, the motivation behind adopting this method is both ease of access and financial constraints. Participants were recruited through convenience sampling at Necmettin Erbakan University, Gazi University, and Sakarya University. Data collection was conducted through in-class administration during courses and via online survey links shared by faculty instructors and student groups. As access to courses and student groups varied across institutions, recruitment was not evenly distributed. Accordingly, the researchers used Google Forms as a data collection tool. At the very beginning of data collection, participants were informed that they could withdraw from the study at any time. The form allowed no missing data, and 345 volunteer tertiary students from various universities in Türkiye completed it. The participants consist of 70 males (20.3%) and 275 females (79.7%) across various departments. The average

age was 21.37 (SD: 4.17; range: 18-45). The majority of the participants are juniors (f = 201; 58.3%), followed by freshmen (f = 80; 23.2%), sophomores (f = 59; 17.1%), and seniors (f = 5; 1.4%). The top three departments in which the participants studied were the Faculty of Theology (f = 170, 49.3%), the Department of Social Studies (f = 66, 19.1%), and the Department of Art Education (f = 44, 12.8%), respectively. The disproportionate representation of female participants likely stems from the nature of convenience sampling and the gender composition of the faculties from which participants were predominantly recruited. Moreover, the researchers conducted a post hoc power analysis using G*Power 3.1.9.4 (Faul, Erdfelder, Buchner, & Lang, 2009) to check the adequacy of the sample size. Using linear multiple regression and 3 predictors ($\alpha = .05$, N = 345) and the observed effect size ($f^2 = 0.18$; $R^2 = .154$), the statistical power was around .99, which is above the recommended thresholds (Cohen, 1988).

Ethical Approval

The study protocol has been approved by Necmettin Erbakan University Scientific Research and Ethical Review Board (Report Number: 2025/875- 17/09/2025). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its following updates.

Measures

Grit Scale (G)

The "Grit" scale was developed by Duckworth and Quinn (2009) and adapted into Turkish by Akın and Arıcı (2015). The Likert-type scale, consisting of two factors called "consistency of interest" and "perseverance of effort," has eight items in total, four of them reverse-coded. It has response options ranging from "Totally Agree" to "Totally Disagree". Item total correlations range between .31 and .46 for the consistency of interest factor, and they range between .32 and .42 for the perseverance of effort factor. Fit values ($\chi^2 = 40.34$; $df = 19$; RMSEA = .060; NNFI = .90; IFI = .94; CFI = .93; GFI = .97; AGFI = .94; SRMR = .059) indicate that the adapted scale is appropriate for the Turkish sample.

Subjective Happiness Scale (SH)

"The Subjective Happiness" scale was developed by Lyubomirsky & Lepper (1999) and adapted into Turkish by Akın and Satıcı (2011). The seven-point Likert-type scale consists of four items, one of which is reverse-coded, and is loaded on a single factor. The item-total correlations ranged between .55 and .76, and factor loadings ranged between .34 and .84, and the scale explained 46% of the variance. The scale also has high reliability ($\alpha = .86$). Fit values also [RMSEA = .000, NFI = .99, CFI = 1.00, IFI = 1.00, RFI = .98, GFI = 1.00, AGFI = .99; SRMR = .015] indicate that the scale is a valid and reliable tool to study subjective happiness.

Early Memories of Warmth and Safeness Scale (EMWS)

"The Early Memories of Warmth and Safeness Scale", developed by Richter et al. (2009) and adapted into Turkish by Akın et al. (2013), has 20 items in a single factor. The five-point Likert-type scale has no reverse-coded items and has response options ranging from "Always" to "Never". The factor loadings range between .52 and .75. The internal consistency value for the scale is .88, and corrected item total correlations range between .21 and .68. Fit values [$\chi^2 = 358.79$; $df = 163$; $p = .0000$; RMSEA= .055; NFI = .97; CFI = .99; IFI = .99; RFI = .97; GFI = .92; SRMR = .039] indicate that the adapted scale is suitable for the Turkish sample.

Psychological Vulnerability Scale (PV)

"The Psychological Vulnerability" scale, developed by Sinclair and Wallston (1999) and adapted into Turkish by Akın and Eker (2011), has six items in a single factor. The five-point Likert-type scale has no reverse-coded items and response options ranging from "Not at all true for me" to "Completely true for me". Fit values for the scale are; $\chi^2 = 7.82$, $df = 9$, $p = .552$; RMSEA = .000, NFI = .97, CFI = 1.00, GFI = .99, AGFI = .98, RFI = .95, and SRMR = .025. Factor loads ranged between .46 and .69. The internal consistency coefficient was .75, and the corrected item-total correlations ranged between .26 and .44.

Data Analysis

The researchers followed a two-step approach. The first step involves the confirmatory assessment, and the second tests the relationships among the constructs using serial mediation analysis. Consequently, this paper deals with the correlations among "Early Memories of Warmth and Safeness (EMWS)", "Subjective Happiness (SH)", "Grit (G)", and "Psychological Vulnerability (PV)". The paper handles the mediating roles of "Psychological Vulnerability" and "Grit" between "Early Memories of Warmth and Safeness" and "Subjective Happiness". Though some of the scales used in the study were originally developed or adapted for high school students, the constructs measured by the instruments are not specific to high school students and are applicable across late adolescence and emerging adulthood. The literature also has studies using these scales, which were originally developed or adapted for high school students (Grit Scale, Early Memories of Warmth and Safeness Scale) for university students or adults (Akgül, 2019; Durmuş et al., 2022; Manici & Aydın, 2022; Öztop Tuna & Denizli, 2025; Yılmaz, 2019). Therefore, the scales were considered suitable for use with university students. In the analytical process, the researchers employed IBM SPSS Statistics 23 (IBM Corp., 2015), IBM SPSS AMOS 23 (IBM Corp., 2015), and JASP 0.19.3.0 (JASP Team, 2025).

Results

Preliminary Analysis

The initial outputs indicate that EMWS has a mean score of 3.70 (±0.83); SH has a mean score of 4.40 (±0.99); G has a mean score of 3.19 (±0.67); PV has a mean score of 3.13 (±0.73). The data also reveal that the variables have normal distributions, with skewness ranging from -0.74 to -0.02 and kurtosis ranging from 0.98 to -0.18, which are acceptable (George & Mallery, 2010). Furthermore, the researchers performed reliability analyses on the data collected in the present study, and all reliability coefficients were found to be within acceptable ranges ($\alpha = .96$, $\omega = .96$ for EMWS; $\alpha = .64$, $\omega = .67$ for SH; $\alpha = .80$, $\omega = .79$ for G; $\alpha = .67$, $\omega = .67$ for PV). Although values may seem low for SH and G, given the limited number of items in these scales (4 and 6, respectively), they are acceptable (Kalkbrenner, 2023; Kim, 2016; Nunnally, 1978; Ráczová et al., 2021; Taber, 2018).

Table 1. *Descriptive, Reliability & Correlations*

Descriptive & Reliabilities							Correlations			
M	**SD**	**Sk**	**K**	**ω**	**α**	**Measures**	**EMWS**	**SH**	**G**	**PV**
3.70	0.83	-0.74	0.19	.96	.96	EMWS	—			
4.40	0.99	-0.02	0.98	.67	.64	SH	.33*	—		
3.19	0.67	-0.06	0.12	.79	.80	G	.30*	.24*	—	
3.13	0.73	-0.16	-0.18	.67	.67	PV	- .35*	- .28*	- .38*	—

The Measurement Model

At the beginning of the research, the measurement model consisting of the latent variables "Early Memories of Warmth and Safeness" (EMWS), "Subjective Happiness" (SH), "Grit" (G), and "Psychological Vulnerability" (PV) was tested utilizing IBM SPSS AMOS 23 (IBM Corp., 2015), using the maximum likelihood estimation method. The model fit was evaluated employing multiple fit indices, and the outcomes indicated that the measurement model had acceptable fit values [χ^2 (659, N = 345) = 1268.935, p <.001; χ^2/df =1.94; RMSEA = .05; SRMR = .05; CFI = .91; TLI = .90]. All factor loadings were significant and ranged between .52 and .86 for EMWS; .19 and .85 for SH; .20 and .75 for G; .26 and .77 for PV. Various cutoff points are offered for factor loadings because higher values better represent the construct. However, in this paper, though some factor loads were relatively low, they were retained due to theoretical significance (Howard, 2023).

The Mediation Model

Utilizing Hayes PROCESS Macro Model 6 (Hayes, 2017), the proposed mediation model has been tested, taking 95% percentile bootstrap confidence intervals (CI) and B values into account. Indirect effects were estimated using 5000 bootstrap resamples, and an effect is considered significant when the corresponding confidence interval does not include zero (Hayes, 2017). Considering the correlations among the variables, the authors hypothesized a partial mediation utilizing a serially mediated model, which had direct paths between

EMWS (IV) and SH (DV); EMWS and PV (MV); PV and G (MV); G and SH; EMWS and G; PV and SH. They hypothesize that "Early Memories of Warmth and Safeness (EMWS)" is associated with "Subjective Happiness" (SH), and "Psychological Vulnerability (PV) and Grit (G)" serially mediate the relationship between "Early Memories of Warmth and Safeness (EMWS)" and "Subjective Happiness (SH)", and there are significant associations between the variables. Accordingly, during the analysis, the independent variable, EMWS, was entered as X; the dependent variable, SH, as Y; and PV and G as sequential mediators, consistent with the hypothesized pathway.

Regarding the mediation analysis, all variables were computed as mean scores. The outputs indicated that the direct path from EMWS to SH was statistically significant (B = 0.2915, SE = 0.0651, 95% CI [0.1636, 0.4195]). Moreover, the direct paths between EMWS to PV (B = - 0.3130, SE = 0.0446, 95% CI [- 0.4008, - 0.2252]), PV to G (B = - 0.2885, SE = 0.0477, 95% CI [- 0.3825, - 0.1946]), G to SH (B = 0.1723, SE = 0.0818, 95% CI [0.0115, 0.3332]), and EMWS to G (B = 0.1539, SE = 0.0422, 95% CI [0.0709, 0.2369]) and PV to SH (B = -0.2086, SE = 0.0760, 95% CI [-0.3580, -0.0592) were all significant. The mediation summary is available in Table 2.

Table 2. *The Mediation Output*

Type of Effect	**Path**	**B**	**BootSE/SE**	**CI**	
				LLCI	**ULCI**
Total Effect	EMWS->SH	0.3989	0.0610	0.2789	0.5189
Direct Effect	EMWS->SH	0.2915	0.0651	0.1636	0.4195
Specific Indirect Effect 1	EMWS->PV->SH	0.0653	0.0225	0.0235	0.1111
Specific Indirect Effect 2	EMWS->G->SH	0.0265	0.0155	0.0001	0.0600
Specific Indirect Effect 3	EMWS->PV->G>SH	0.0156	0.0090	0.0001	0.0351

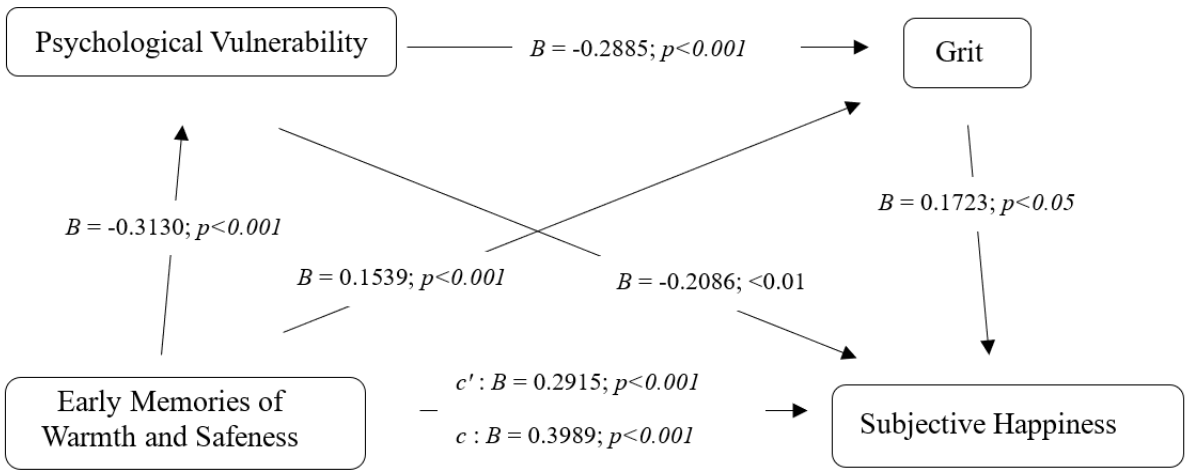


Figure 1. *The Path Model*

Discussion

The results of this study provide important findings about the relationships among Early Memories of Warmth and Safeness (EMWS), psychological vulnerability, grit, and subjective happiness. Higher levels of EMWS were associated with lower levels of psychological vulnerability, which, in turn, were associated with higher levels of grit and subjective happiness. The results supported H1, indicating a significant negative association between EMWS and psychological vulnerability, consistent with Santos et al. (2023), who found that EMWS was associated with depressive and anxious symptoms among adolescents, providing indirect evidence that

stronger memories of warmth and safeness may be associated with lower levels of psychological distress. Similarly, Matos et al. (2013) found that EMWS were associated with depressive symptoms through the mediating role of internal shame. Taken together, these findings suggest that positive memories of warmth and safeness are relevant to adolescents' psychological well-being and may be associated with lower levels of psychological vulnerability. Childhood experiences have been linked to brain development as well as emotional and mental health, which may help explain the observed association between early experiences and psychological vulnerability (Perry, 2002). Negative childhood memories might be associated with maladaptive cognitive distortions, which may be related to greater psychological vulnerability, as Boardman (2022) showed. The study found that the largest indicators of lower psychological resilience were high levels of negative cognitive ideas about uncontrollability, fear, and the possibility of emotional abuse. These findings suggest an association between adverse childhood experiences, psychological vulnerability, and lower psychological resilience, rather than establishing a causal relationship. According to Bersani et al. (2024), people who were exposed to traumatic events as children typically exhibit higher degrees of psychological vulnerability and develop insecure attachment styles. Early exposure to negative situations has also been associated with heightened stress responses and differences in cognitive, social, and emotional functioning (Madigan et al., 2023). According to the Stress Sensitivity Model, early traumatic experiences may be associated with greater psychological vulnerability and stress sensitivity, which may be related to a greater risk of psychological difficulties later in life when confronted with unfavorable circumstances (Monroe & Harkness, 2005). In a similar vein, a long-term study by Korten et al. (2014) found that adverse childhood experiences were associated with greater psychological and physical susceptibility, increasing the likelihood of depression and impairing cognitive functioning as an adult. According to Kitamura and Fujihara (2003), age moderates the association between childhood adversities and psychological vulnerability, and this relationship tends to deteriorate over time.

The second hypothesis (H2) was supported, with psychological vulnerability showing a negative association with grit. According to Araújo et al. (2025), psychological vulnerability is linked to maladaptive cognitive beliefs, including self-criticism, perfectionism, and the need for external approval. These beliefs may be associated with lower tenacity and reduced perceived capacity to deal with difficult situations. A collection of cognitive schemas that heighten stress sensitivity and cultivate a sense of reliance on success or approval from others is known as psychological vulnerability. Nagle et al. (2026) concluded that interventions aimed at enhancing grit may be associated with improved mental health outcomes and subjective happiness among individuals exposed to childhood trauma. Psychological vulnerability, according to Beck and Haigh (2014), includes aspects such as rigid cognitive patterns, unfavorable self-concepts, negative judgments of others, and negative impressions of life events. These cognitive patterns may be associated with individual differences in grit.

The third hypothesis (H3) was supported, as grit was positively associated with subjective happiness. Subjective happiness offers insight into an individual's general well-being and represents their assessment of their quality of life. Higher levels of subjective happiness are typically reported by people who are able to control their emotions and show perseverance and resilience in the face of adversity (Saunders et al., 2023). Individuals who persistently pursue their objectives are frequently seen to be happier and more content with their lives since such perseverance is associated with academic success and subjective happiness (Khan & Khan, 2017). Research by Muhammad et al. (2020) revealed a positive correlation among grit, hope, meaning in life, and happiness. Higher levels of psychological perseverance were associated with higher levels of hope, sense of meaning, and happiness among students. The finding that gritty individuals tend to experience greater happiness in life has also been supported by various studies (Akbağ & Ümmet, 2017; Hill, Burrow & Bronk, 2016; Singh & Jha, 2008;).

The fourth hypothesis (H4) was supported, indicating that psychological vulnerability and grit serially mediated the relationship between EMWS and subjective happiness. The literature has shown that early life experiences are associated with adult mental health (Uyanık et al., 2019). In particular, family environments characterized by open communication, mutual love, trust, and commitment are positively associated with happiness and subjective well-being; conversely, emotional coldness, limited interaction, overprotective attitudes, and restricted autonomy are associated with depression, introversion, and negative emotions (Uyanık et al., 2019). One important factor associated with later psychological well-being is the quality of the parent-

child bond (Turner, Sarason, and Sarason, 2001). Exposure to peer bullying, parental loss, and parental divorce is considered among the negative childhood experiences that can affect an individual's developmental process. Such experiences have been shown to be associated with lower levels of subjective happiness (Nurius, Logan-Greene, and Green, 2012). Similarly, Erdoğan (2020) revealed that experiences of emotional and physical trauma, in particular, are associated with reporting more psychological problems and various life difficulties in adulthood.

Limitations and Future Research

Despite the significant contributions of this study, some limitations need to be considered. First, the cross-sectional research design limits causal inference about the relationships among early memories of warmth and safeness, subjective happiness, psychological vulnerability, and grit. Longitudinal research is needed to reveal the reciprocal relationships of these variables over time and to evaluate whether the proposed variable order is empirically supported. Second, the sample consisting of Turkish university students may limit the generalizability of the findings to other age groups, demographic characteristics, or cultural contexts. Furthermore, the fact that approximately 80% of the sample is female and a significant portion of the participants are studying at the Faculty of Theology indicates a significant imbalance in representation. Given that the convenience sampling method may have contributed to this situation, caution should be exercised when generalizing the findings to university students. Thirdly, the fact that all data in the study were obtained via self-report instruments may introduce biases, such as common method variance and social desirability bias. Therefore, in future studies, using multiple data collection methods, such as behavioral tasks, observer evaluations, and data from different information sources, in addition to self-report measures, may contribute to a more comprehensive evaluation of the findings. Finally, the retrospective assessment of the Early Memories of Warmth and Safeness (EMWS) variable should be considered a significant limitation. Participants reporting their childhood experiences based on current perceptions in adulthood may introduce recall bias. In addition, factors such as current mood, personality traits, and subjective happiness level may be associated with how individuals remember and evaluate early experiences. Therefore, future research that assesses early experiences through different data sources and, where possible, prospective measurements, may contribute to a more reliable understanding of the relationships between EMWS.

Conclusion

In sum, this study indicates the relationship between Early Memories of Warmth and Safeness (EMWS) and Subjective Happiness by exploring the serial mediating roles of Psychological Vulnerability and Grit. These findings suggest that psychological vulnerability and grit are associated with the observed relationship pattern between early memories of warmth and safeness and subjective happiness.

Funding: The authors received no financial support for this article's research, authorship, and/or publication.

Conflict of Interest: No conflict of interest exists for any authors of this manuscript.

Data Availability: Data will be available at a reasonable request.

Ethical Approval: The study protocol has been approved by Necmettin Erbakan University Scientific Research and Ethical Review Board (Report Number: 2025/875- 17/09/2025). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its following updates.

Consent to Participate: Informed consent was obtained from all the participants included in the study. Informed consent was obtained electronically from all participants prior to their participation in the study (21/09/2025).

Acknowledgments: This study was not pre-registered.

Author Contributions: The study was conceptualized by S.A, N.A., and R.H. The methodology was developed by S.A., N.A., and F.Y. N.A. and R.H. provided the necessary resources, and the validation was carried out by F.Y. F.Y. and S.A. were responsible for data curation, while F.Y. conducted the formal analysis. Visualization was prepared by R.H. The original draft of the manuscript was written by S.A., N.A., F.Y., and R.H., and the review and editing were performed by S.A. and N.A. All authors have read and approved the final version of the manuscript.

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