




# Investigating the Mediating Role of Personality Functions in the Relationship Between Early Maladaptive Schemas and Existential Anxiety in Individuals with Depression and Anxiety

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**Objective:** The present study aimed to investigate the mediating role of personality functions in the relationship between early maladaptive schemas and existential anxiety in individuals with depression and anxiety.

**Research Method:** The research was cross-sectional, and the analysis was conducted using correlation methods, specifically structural equation modeling (SEM), and in particular, regression equations. The statistical population of this study consisted of all individuals referring to psychological counseling clinics in Mazandaran province (Sari and Babol) during the summer and autumn 2022. To determine the sample size, considering the number of observed variables and allocating a coefficient of 15 for each observed variable, 600 individuals were selected as the sample size, which were chosen through purposive sampling. For data collection, the Young Schema Questionnaire (2005), the Good and Good Existential Anxiety Questionnaire (1974), and the Costa and McCrae Personality Functioning Questionnaire (1992) were used. SPSS-22 and AMOS-23 software were utilized for data analysis, employing structural equation regression modeling.

**Findings:** The results of the research indicated that there is a direct relationship between early maladaptive schema and existential anxiety. Additionally, there is an indirect relationship between early maladaptive schema and existential anxiety, mediated by personality functions.

**Conclusion:** Given the findings of the current study, it seems that the psychological organization, along with health and treatment organizations as influential institutions, can provide the necessary conditions for increasing cognitive awareness of early maladaptive schemas and improving coping skills with them.

**Keywords:** Personality functions, Early maladaptive schemas, Existential anxiety, Depression, Anxiety

## 1. Introduction

Internalized disorders are increasingly recognized as a serious health problem (Bayer et al., 2006). Anxiety and depression are two internalized disorders that often co-occur, and having one increases the risk of developing the other over time (Pop et al., 2022). Depression, a mood disorder, significantly harms mental health. It is the fourth leading cause of disease burden worldwide, accounting for the largest share of non-fatal disease burden (Pop et al., 2022; Rauwenhoff et al., 2023). Cognitive symptoms of depression include all-or-nothing thinking, catastrophizing, memory and attention problems, internal locus of control, negative views of oneself, the world, and the future, automatic thoughts, pessimistic attributional styles, feelings of helplessness and hopelessness, low self-esteem, decision-making problems, a sense of losing control, and suicidal thoughts, among others (Stanton et al., 2020). Physical symptoms include psychomotor agitation or retardation, complaints of physical problems, overeating or appetite loss, insomnia or hypersomnia, low energy, fatigue, and lack of interest in activities that were once enjoyable (Zhang et al., 2021). Mental health damage, in turn, not only disturbs the psyche of individuals but also affects other aspects of their health, including physical and social well-being. Anxiety disorders are among the most common mental disorders across all age groups (Cheng et al., 2020) and are a significant factor in the emergence of certain social, cultural, and family problems. Anxiety is identified as a mental state of fear, distress, or worry that may include both somatic sensations (e.g., headache or nausea) and emotional symptoms such as nervousness (Götze et al., 2020).

Some studies have shown that anxiety reduces the body's resistance to infection and also stimulates the thyroid, pancreas, and pituitary gland. Generally, various physical and psychological aspects of humans are affected by anxiety, which can lead to physical complications (Borkovec & Inz, 1990; Wolters et al., 2022). Anxiety involves the anticipation of future threats, often associated with muscle tension and vigilance in preparation for danger and avoidance behaviors (American Psychiatric Association, 2022). Depression and anxiety often occur together. Anxiety varies by cause, one of which is existential anxiety. Existential anxiety is a concern or distress stemming from feelings of alienation, emptiness, and meaninglessness; it refers to worries, fears, and panic arising from thinking about the most fundamental questions of life: Who am I? Why am I here? What is the purpose of my creation? etc. (Aa

et al., 2015; Aderka et al., 2012). Resnick et al. (2004) in their investigation into adolescent vulnerability to depression found that early maladaptive schemas along with low social skills are significant factors in increasing adolescents' vulnerability to depression (Resnick et al., 2004). Moreover, each personality trait employs dominant behavioral patterns and coping strategies in response to life's challenges and problems. The effectiveness or ineffectiveness of these behavioral patterns and coping strategies can lead to the improvement or worsening of depression (Almeida et al., 2009; De Clercq et al., 2008; Ghorbani et al., 2000).

Given the aforementioned, individuals with anxiety and depression are often dissatisfied with life and may even attempt suicide. Therefore, to help improve the health level of these individuals, investigating factors that can cause and exacerbate anxiety and depression in these patients is of great importance. Exploring factors that can explain all the variance in anxiety and depression requires extensive and perhaps longitudinal studies. Considering the emphasis on cognitive approaches, personality theories, and systemic approaches, it appears that early maladaptive schemas, existential anxiety, and personality traits, as central concepts in these approaches, can explain the occurrence of anxiety and depression. To date, limited research in Iran has examined early maladaptive schemas, existential anxiety, and personality traits in patients with anxiety and depression disorders. Therefore, considering the research gap and contradictions in other findings, examining research findings in this field can design a model and explain the relationship of these components with anxiety and depression. Thus, the present study was formed in response to the question of whether a model of the mediating role of personality functions in the relationship between early maladaptive schemas and existential anxiety is fit. The general content indicates that due to the nature of anxiety and depression, these individuals endure significant stresses, creating numerous challenges for both families and society. Short-term, medium-term, and long-term planning is seriously needed for treatment. Overall, the results of this research confirm that considering the importance of healthcare service environments in primary prevention and diagnosis of anxiety and depression symptoms and proper interaction with patients and supporting them can reduce the number of psychological damages from this problem. This issue is important because, according to research conducted, from the perspective of experts and professionals related to health in our country, a lack of awareness and the absence of

sufficient training for doctors and healthcare workers to properly deal with patients are considered major weaknesses of the health system in the country.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This research, considering its objectives, is foundational and cross-sectional in terms of data collection method, and its analysis was conducted using correlation methods, specifically through structural equation modeling (SEM), focusing on covariance-based SEM (CBSEM). The study population consisted of all individuals attending psychological counseling clinics in Mazandaran province (Sari and Babol) during the summer and autumn of 2022. For an optimal estimate in studies related to structural equation modeling and to comply with the structural equation model, the sample size should exceed 200 samples based on a coefficient for the number of observed variables (Stevens, 1994, as cited by Hooman, 2014). In this study, considering the number of observed variables and allocating a coefficient of 15 for each observed variable, accounting for the possibility of incomplete questionnaires, 600 individuals were selected as the sample size through purposive sampling. Entry criteria for the research included scoring above a threshold in depression and anxiety questionnaires, being aged 20 to 40 years, while exit criteria included having severe psychiatric disorders, physical or medical problems, unwillingness to participate in the study, and incomplete questionnaire completion. Subjects were selected based on a diagnosis of depression and anxiety, willingness to volunteer, and compliance with necessary criteria.

### 2.2. Measures

#### 2.2.1. Early Maladaptive Schemas

Young Schema Questionnaire (YSQ): Created by Young (1988), this questionnaire contains 75 questions designed to measure 15 early maladaptive cognitive schemas including emotional deprivation, abandonment, mistrust, social isolation, defectiveness, dependency, vulnerability to harm, undeveloped self, submission, emotional inhibition, self-sacrifice, unrelenting standards, insufficient self-control, entitlement, and failure. Each of the 75 statements in this questionnaire is scored on a 5-point Likert scale from "Completely untrue of me" to "Describes me perfectly." An individual's score for each schema is obtained by summing the scores of 5 questions related to that schema, with high

scores indicating a strong presence of maladaptive schema. The minimum score for each schema is 5, and the maximum is 25. A total score can also be defined for each questionnaire, which is the sum of individual scores in 15 schemas, ranging from 75 to 375. The reliability and validity of this tool have been proven in various studies (Khorasani Zadeh et al., 2019).

#### 2.2.2. Existential Anxiety

Existential Anxiety Questionnaire (EAI): This questionnaire, created by Good and Good (1974), aims to measure the level of anxieties such as death, loneliness, guilt, emptiness, and lack of meaning in life. This 32-item scale calculates existential anxiety scores in a true/false format, with the existential anxiety score for each individual derived from the total correct responses. Holt (1994), validated the questionnaire's validity by correlating it with a combination of tests like purpose in life, pursuit of cognitive goals, and depression, finding a correlation of about 0.66. Nooralizadeh and Janbaz (2010) validated this test using Cronbach's alpha, which was found to be 0.88 (Hussein, 2021; Schnell & Krampe, 2020; Tremblay & Dozois, 2009).

#### 2.2.3. Personality Functioning

Personality Functioning Questionnaire: This scale, developed by Costa and McCrae (1992), consists of 60 questions representing five factors of personality: neuroticism, extraversion, openness, agreeableness, and conscientiousness. For each scale, 12 questions were selected from the 180-item Personality Assessment Inventory. This questionnaire uses a five-point Likert scale. Internal consistency ranged from 0.68 to 0.86, and reliability through retesting over a two-week period ranged from 0.86 to 0.90 for the five scales. This tool has been translated into various languages, including Persian, and is widely used in assessing the components of the Big Five personality model. However, some findings have indicated that certain questions, especially those related to openness and agreeableness, have a low ability to differentiate and negatively affect the reliability of these scales. Consequently, McCrae and Costa (2004) provided a revised version (NEO-FFI-R), where weak questions were replaced with those having greater discriminative power. The new scale shows more satisfactory psychometric properties (Mosadegh et al., 2023).

2.3. *Data analysis*

For the analysis of the obtained data, structural equation regression modeling was used. The analysis was performed using SPSS22 and AMOS 23 software.

**3. Findings and Results**

Demographic findings from the study indicated that among the participants, 152 individuals (25.33%) were aged

20 years, 248 individuals (41.34%) were aged 20 to 30 years, and 200 individuals (33.33%) were aged 30 to 40 years. Additionally, 282 participants (47%) were male, and 318 participants (53%) were female. Among the study participants, 124 individuals (20.65%) had education levels below high school diploma, 126 individuals (21%) had a high school diploma, 145 individuals (24.15%) had associate degrees, 150 individuals (25%) had bachelor's degrees, and 55 individuals (9.20%) had master's degrees or higher.

**Table 1**

*Descriptive Findings of Research Variables*

Descriptive Indices	Mean	Standard Deviation	Minimum	Maximum
Emotional Deprivation	14.15	6.12	7	24
Abandonment	15.12	6.45	7	25
Mistrust	14.14	6.10	6	23
Social Isolation	13.88	6.05	6	23
Defectiveness	12.90	5.95	5	22
Dependence	13.05	6.02	5	23
Vulnerability to Harm	15.52	6.58	9	25
Undeveloped Self	12.08	5.80	6	22
Subjugation	12.05	5.75	5	20
Emotional Inhibition	14.30	6.18	7	25
Self-Sacrifice	11.96	5.63	5	19
Unrelenting Standards	12.10	5.77	5	20
Insufficient Self-Control	14.85	6.50	8	24
Entitlement	11.94	5.55	5	20
Failure	13.06	6.04	6	21
Existential Anxiety	19.45	8.19	7	30
Despair	4.12	2.40	3	6
Self-Alienation	4.25	2.45	4	7
Sense of Emptiness	4.32	2.48	4	8
Meaninglessness	4.05	2.32	3	6
Neuroticism	35.36	10.05	13	57
Extraversion	26.25	8.85	12	55
Openness	25.15	8.76	12	53
Agreeableness	23.12	7.42	14	53
Conscientiousness	24.18	7.45	15	50

As observed in Table 1, the means (and standard deviations) for the subscales of early maladaptive schemas has been shown. To investigate the relationship among personality functions, early maladaptive schemas, and existential anxiety, a hypothetical model based on the research background was designed and tested, with the results reported below:

For evaluating the proposed model, the structural part was examined using fit indices. To assess the fit of factorial models, indicators such as Chi-square, degrees of freedom, Chi-square to degrees of freedom ratio ( $\chi^2/df$ ), Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI),

Incremental Fit Index (IFI), and Non-Normed Fit Index (NNFI) were used, which were respectively 5.96, 2, 2.98, 0.057, 0.97, 0.95, 0.99, 0.98, 0.99, and 0.98.

A Chi-square to degrees of freedom ratio less than 3 is considered desirable. Furthermore, an RMSEA less than 0.1 indicates an acceptable fit, and as GFI, AGFI, NFI, CFI, and NNFI indices approach 1, they indicate a more satisfactory model fit. Given the indices obtained in the table above, the Chi-square to degrees of freedom ratio is 2.98, and the fit indices GFI, AGFI, NFI, CFI, and NNFI are within the range of ninety to one, suggesting that these indices have met the necessary standards. Therefore, it can be said that the model has a good fit and is confirmed.

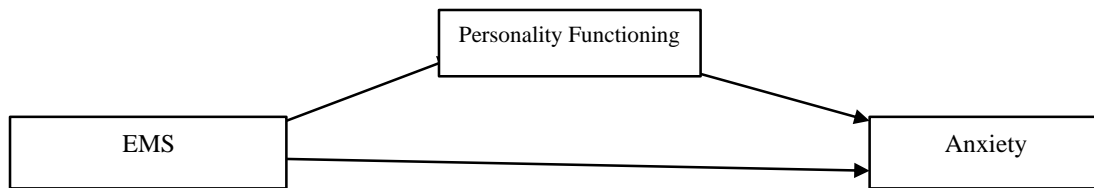
**Table 2**

*Measurement Parameters for Direct Relationships in the Proposed Model*

Path	Standard Estimate	Unstandardized Estimate	Standard Error	Critical Ratio	Significance Level (p)
Early Maladaptive Schema to Personality Functions	-0.45	-1.48	0.20	-7.40	p = 0.001
Early Maladaptive Schema to Existential Anxiety	0.36	1.37	0.29	4.72	p = 0.001
Personality Functions to Existential Anxiety	-0.33	-1.35	0.32	-4.21	p = 0.001

**Figure 1**

*Conceptual Proposed Model*



**Table 3**

*Bootstrap Results for Indirect Relationship in the Research Model*

Path	Standard Estimate	Upper Limit	Lower Limit	Significance Level (p)
Early Maladaptive Schemas to Existential Anxiety via Personality Functions	-0.25	-0.20	-0.30	p ≥ 0.01

According to the results in Table 2 and Table 3, it is evident that the indirect relationship of early maladaptive schema to existential anxiety through personality functions is significant with  $\beta = -0.25$  at a significance level of  $p \leq 0.01$ . Therefore, it can be stated that the indirect relationship between early maladaptive schema and existential anxiety through personality functions is established and significant.

**4. Discussion and Conclusion**

The present research aimed to investigate the mediating role of personality functions in the relationship between early maladaptive schemas and existential anxiety in individuals with depression and anxiety. The results showed that there is a direct relationship between early maladaptive schema and existential anxiety. This finding is consistent with the results of previous studies (Baljé et al., 2016; Cremers & Roelofs, 2016; Dadomo et al., 2016; Johnson et al., 2023; Muris, 2006; Oussi et al., 2023; Peng et al., 2021; Simard et al., 2011; Tremblay & Dozois, 2009). Early maladaptive schemas in childhood cause vulnerability to

existential anxiety in adulthood. The results of this study align with cognitive theories suggesting that individuals with anxiety and depression possess cognitive vulnerabilities (Khorasani Zadeh et al., 2019). Existential anxiety stems from despair, alienation, and a sense of emptiness. Indeed, existential anxiety is a feeling accompanied by self-awareness and awareness of one’s vulnerability when faced with the possibility of death. Existential anxiety can also lead to a sense of alienation and ennui in individuals, highlighting awareness of non-being. Paul Tillich describes this type of anxiety as the awareness of non-being. When an individual is anxious, they disregard their ability to self-value. Such individuals, when placed in an unavoidable situation, feel uncomfortable emotions such as depression and anxiety (Diener et al., 2009; Grant et al., 2003). In explaining the relationship between existential anxiety and early maladaptive schema, it should first be noted that early maladaptive schemas are the individual's deepest psychological structures that interact with negative and stressful life events. Schemas are individuals' knowledge about events and the world, influencing how individuals

interpret events; thus, while facilitating cognitive functioning, schemas can perpetuate psychological problems (Baljé et al., 2016; Muris, 2006). The content of schemas specifies the type of disorder. Anxiety schemas consist of beliefs and assumptions about danger and the inability to cope with it. When a maladaptive schema is activated by a situation and schema triggers, the individual experiences emotions and bodily sensations and may consciously or unconsciously link this experience to early memories (Dadomo et al., 2016; Tremblay & Dozois, 2009). Early maladaptive schemas naturally disrupt individuals' psychological functions, as the individual suffers from emotional deprivation, abandonment, social isolation, and a sense of incompetence; therefore, when an individual is filled with maladaptive schemas, various psychological problems such as existential anxiety appear (Muris, 2006; Simard et al., 2011). In another explanation, it can be stated that early maladaptive schemas are predictive factors for reduced self-acceptance. In social isolation and alienation, this feeling gives the individual the impression that they are different from others. Therefore, they withdraw from others and feel that they do not belong to a specific community or group. In the findings of Young and colleagues (2003), individuals who have the schema of social isolation and alienation also have problems with self-acceptance because the individual first feels alienated and strange to themselves, becomes unaware of their needs, strengths, and weaknesses, and does not attempt to reconcile with themselves. As much as they do not accept themselves, they refrain from accepting others and establishing close relationships. Depression and anxiety are factors that cause the individual to withdraw from social activities and become socially restricted. Indeed, loneliness and isolation are among the major problems these individuals face. On the other hand, individuals with maladaptive schemas, instead of addressing their own needs, seek to satisfy the needs of others. They do this to gain approval, continue emotional relationships, or avoid revenge. In childhood, they were not free to follow their natural inclinations, and in adulthood, they are influenced by the external environment instead of being directed from within, following the desires of others. The developmental roots of the schemas in this domain are based on conditional acceptance. In most of these families, parents, instead of paying attention to and valuing the unique needs, consider their emotional needs or social status more important. Usually, it seems that the individual's desires, beliefs, and feelings are worthless or insignificant to others. These schemas often manifest as excessive obedience, coupled

with an overly sensitive attitude towards others' feelings. This schema generally leads to anger, which manifests in various maladaptive signs, including passive-aggressive behaviors, uncontrolled emotional outbursts, psychosomatic symptoms, and withdrawal from emotions, all of which contribute to increased existential anxiety (Young et al., 2006). Furthermore, in explaining this finding, it can be stated that in neglectful families, where the child's needs are not met, there is a lot of anxiety. The feature of the mistrust/abuse schema is suspicion. Such individuals distance themselves from people and are not willing to establish intimate relationships. Pessimism is a risk factor for existential anxiety. Researchers have affirmed the relationship between schema and existential anxiety in individuals with anxiety and depression from one side by presenting the conceptual definitions of the two constructs (Muris, 2006; Tremblay & Dozois, 2009). On the other hand, they refer to adverse childhood experiences as cognitive infrastructures leading to the formation of irrational beliefs that influence behavior. The negative outcome of these exaggerated thoughts and irrational, inefficient beliefs is the presence of psychological disorders like anxiety and depression. Such that individuals with negativity and pessimism schemas pay more attention to the negative aspects of their life (like pain, death, loss, despair, etc.) and ignore the positive aspects (Baljé et al., 2016; Dadomo et al., 2016).

The results showed an indirect relationship between early maladaptive schema and existential anxiety mediated by personality functions. Despite the conducted reviews, no research was found that directly compared these three variables, but several studies have separately investigated these variables, which are consistent with the findings of the present study (Almeida et al., 2009; Baljé et al., 2016; Cremers & Roelofs, 2016; Dadomo et al., 2016; Ghorbani et al., 2000; Muris, 2006; Peng et al., 2021; Tremblay & Dozois, 2009), including the research by Haq Shenan (2006). Therefore, these results emphasize the role of personality factors in existential anxiety disorder. In interpreting the findings of the present study, it can be said that individuals with the personality trait of neuroticism are more prone to experience anxiety, stress, impulsivity, depression, low self-esteem, and negative emotions compared to others (Dadomo et al., 2016; Ghorbani et al., 2000). This predisposition causes these individuals to experience more anxiety and stress in crisis situations and are more likely to be exposed to anxiety-provoking events and messages. Also, these individuals are more likely to process and recall negative life

memories and are more susceptible to existential anxiety (Dadomo et al., 2016; Ghorbani et al., 2000). It seems that due to dwelling on negative memories and bias towards negative matters, in addition to experiencing stress and worry, they feel more despair and exhibit more symptoms of anxiety. Moreover, to explain this finding, it can be said that personality traits affect the health of the individual and those around them. Extraversion (being social) is strongly related to a positive emotional style, whereas neuroticism is related to a negative emotional style. Neuroticism drives individuals towards negative moods, while extraversion leads them towards positive emotional traits (Peng et al., 2021). Individuals who are open to experience enjoy good flexibility. These individuals are more open to new and unconventional ideas and values, seek excitement, and are inclined to experience both positive and negative emotions, and are also more receptive to new and diverse activities (Cremers & Roelofs, 2016; Tremblay & Dozois, 2009). It seems that individuals with such traits, due to their thrill-seeking nature, try to welcome new experiences, and since new and varied experiences cause arousal and exhilaration, the likelihood of anxiety in these individuals decreases. Depression schemas reflect preoccupation with loss, failure, rejection, and emptiness (Leahy & Kaplan, 2004). The experiences of individuals with different personality traits from unpleasant interpersonal interactions, neglect, and threat of abandonment can justify the perception of being harmful and neglected and concern and pessimism towards their current relationships. According to Young and colleagues, the schema mentality model is an effort to explain the psychopathology of personality traits manifesting as dysfunctional mindsets that activate quickly and cyclically. Schemas form the cognitive foundation of an individual and can shape and direct an individual's behavior; therefore, it can be said that there is a connection between early maladaptive schemas as the underlying and hard cognitions of individuals that often form during developmental stages, with maladaptive behaviors that appear in later stages of an individual's development. Young emphasizes the role of early maladaptive schemas in the formation and persistence of personality. Cognitive theory is based on the belief that there are many maladaptive schemas within personality traits, and these schemas are represented in the mind in arising situations, seemingly directing behaviors and behavioral strategies that are possibly inefficient in certain environmental conditions. Cognitive theory of personality disorders is based on two hypotheses: first, that individuals with personality disorders process

maladaptive schemas related to themselves and their surroundings, leading to misinterpretation of information, which can result in psychological harm (Ghasemkhanloo et al., 2021, 2022; Izadi & Mokhtari, 2021). According to schema theory, the cause of personality traits is the presence of early maladaptive schemas and coping styles with them. This theory believes that if schemas are improved, symptoms of the disorder can also be improved (Leahy, 2016). Young (2003) argued that early maladaptive schemas act as deep infrastructures in chronic psychological disorders such as personality disorders. Early maladaptive schemas perpetuate themselves through cognitive distortions, self-damaging patterns, and maladaptive coping styles, directly or indirectly leading to psychological distress and personality disorders. Studies have shown that, in general, maladaptive schemas are related to personality traits. Young and colleagues believe that schemas arise due to unmet basic emotional needs during childhood. According to Erikson's (1931) perspective on psychosocial developmental stages, it can be argued that successfully resolving each stage leads to an adaptive schema, while failure at that stage causes a maladaptive schema. These maladaptive schemas are considered the foundation of personality pathology. Freud also suggested that successful resolution of conflict at each stage of a child's psychological development leads to personality growth, while problems in resolving conflict or fixation at any stage result in a specific type of personality trait. When early maladaptive schemas are activated, they generate levels of emotion and lead directly or indirectly to various forms of psychological disturbance, such as depression, withdrawal, avoidance of social relationships, anxiety, etc (Ahmadboukani et al., 2022; Anand et al., 2015; Babaei et al., 2023; Bandelow et al., 2004). When children do not receive sufficient love, affection, respect, and acceptance from their parents, schemas related to detachment and rejection are developed in them; When a child faces criticism from parents or feels unwanted, rejection is created. Theories regarding the relationship between early maltreatment and neglect with the development of personality disorders state that these experiences will cause children to expect others to also harm them. When parents are unable to provide an environment that encourages autonomy for their growth, one of the four schemas related to autonomy and performance might develop in the child.

## 5. Limitations & Suggestions

The present study faced some limitations. The research was conducted on individuals attending psychological counseling clinics in Mazandaran Province (Sari and Babol), hence generalizing the results to the general population faces limitations. Like many studies in the field of humanities, having a cross-sectional nature in time and place was one of the fundamental limitations of this study. Another limitation of this study was the use of self-report tools, which in many cases, diagnosing such deep tendencies requires high insight in the individual. It is suggested that this research be repeated with a larger sample size and in other areas as well. For definitive comments on the results of this study, it is recommended that other studies in the same field be conducted in other statistical populations to increase the generalizability by providing the possibility of comparison. Repeating this study using deeper and more accurate assessment tools like diagnostic interviews can validate the current results. The results of the present study also have implications for treatment; given that individuals with anxiety and depression disorders spend a significant amount of energy, time, and cost coping with worries and negative emotions, considering the mentioned points, there is a need to educate these individuals about increasing emotional regulation and problem-focused coping strategies and schema therapy. The more emotional awareness of individuals increases and their avoidance of negative emotions (which is a feature of high neuroticism) due to being painful and distressing decreases, the more their self-efficacy increases and their confidence in their abilities to deal with future anxiety increases. Given the findings of the current study, it seems that the psychological organization, along with health and treatment organizations as influential institutions, can provide the necessary conditions for increasing cognitive awareness of early maladaptive schemas and improving coping skills with them.

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### Declaration of Interest

The authors of this article declared no conflict of interest.

### Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

### Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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### Authors' Contributions

All authors contributed equally.

### References

- Aa, H. P. A. v. d., Rens, G. H. M. B. v., Comijs, H. C., Margrain, T. H., Gallindo-Garre, F., Twisk, J. W. R., & Nispen, R. M. A. v. (2015). Stepped care for depression and anxiety in visually impaired older adults: multicentre randomised controlled trial. *bmj*, 351, h6127. <https://doi.org/10.1136/bmj.h6127>
- Aderka, I. M., Hofmann, S. G., Nickerson, A., Hermesh, H., Gilboa-Schechtman, E., & Marom, S. (2012). Functional impairment in social anxiety disorder. *Journal of anxiety disorders*, 26(3), 393-400. <https://doi.org/10.1016/j.janxdis.2012.01.003>
- Ahmadboukani, S., Ghamarigivi, H., Kiani, A., & Rezaeisharif, A. (2022). Childhood Experiences and Depressive Symptoms-Suicidal tendencies: A Mediating Role of Rumination and Thwarted Belongingness [Original Research]. *Journal of Police Medicine*, 11(1), 1-14. <https://doi.org/10.30505/11.1.2>
- Almeida, O. P., Greenop, K. R., Hankey, G. J., Lautenschlager, N. T., & van Bockxmeer, F. (2009). Premorbid personality traits are associated with post-stroke behavioral and psychological symptoms: a three-month follow-up study in Perth, Western Australia. *International Psychogeriatrics*, 21(6), 1063-1071. <https://doi.org/10.1017/S1041610209990457>
- American Psychiatric Association, A. (2022). *Diagnostic and statistical manual of mental disorders: DSM-5-TR*. Washington, DC: American psychiatric association. <https://doi.org/10.1176/appi.books.9780890425787>
- Anand, A., Koller, D. L., Lawson, W. B., Gershon, E. S., & Nurnberger, J. I. (2015). Genetic and Childhood Trauma Interaction Effect on Age of Onset in Bipolar Disorder: An Exploratory Analysis. *Journal of affective disorders*. <https://doi.org/10.1016/j.jad.2015.02.029>
- Babaei, S., Manesh, M. N., Abouzari, F., & Karami, S. (2023). The role of traumatic childhood experiences, mentalization and Alexithymia in predicting depression and suicidal thoughts in women suffering from the trauma of marital betrayal. *Iranian Journal of Psychiatric Nursing (IJPN) Original Article*, 10(6). <http://ijpn.ir/article-1-2117-en.pdf>



- Baljí, A., Greeven, A., van Giezen, A., Korrelboom, K., Arntz, A., & Spinhoven, P. (2016). Group schema therapy versus group cognitive behavioral therapy for social anxiety disorder with comorbid avoidant personality disorder: study protocol for a randomized controlled trial. *Trials*, 17(1), 487. <https://doi.org/10.1186/s13063-016-1605-9>
- Bandelow, B., Charimo Torrente, A., Wedekind, D., Broocks, A., Hajak, G., & Rüther, E. (2004). Early traumatic life events, parental rearing styles, family history of mental disorders, and birth risk factors in patients with social anxiety disorder. *European Archives of Psychiatry and Clinical Neuroscience*, 254(6), 397-405. <https://doi.org/10.1007/s00406-004-0521-2>
- Bayer, J. K., Sanson, A. V., & Hemphill, S. A. (2006). Parent influences on early childhood internalizing difficulties. *Journal of Applied Developmental Psychology*, 27(6), 542-559. <https://doi.org/10.1016/j.appdev.2006.08.002>
- Borkovec, T. D., & Inz, J. (1990). The nature of worry in generalized anxiety disorder: A predominance of thought activity. *Behaviour Research and Therapy*, 28(2), 153-158. [https://doi.org/10.1016/0005-7967\(90\)90027-G](https://doi.org/10.1016/0005-7967(90)90027-G)
- Cheng, P., Kalmbach, D. A., Castelan, A. C., Murugan, N., & Drake, C. L. (2020). Depression prevention in digital cognitive behavioral therapy for insomnia: Is rumination a mediator? *Journal of affective disorders*, 273, 434-441. <https://doi.org/10.1016/j.jad.2020.03.184>
- Cremers, H. R., & Roelofs, K. (2016). Social anxiety disorder: a critical overview of neurocognitive research. *WIREs Cognitive Science*, 7(4), 218-232. <https://doi.org/10.1002/wcs.1390>
- Dadomo, H., Grecucci, A., Giardini, I., Ugolini, E., Carmelita, A., & Panzeri, M. (2016). Schema Therapy for Emotional Dysregulation: Theoretical Implication and Clinical Applications [Hypothesis and Theory]. *Frontiers in psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.01987>
- De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel, A., & Mervielde, I. (2008). Maladaptive Personality Traits and Psychopathology in Childhood and Adolescence: The Moderating Effect of Parenting. *Journal of personality*, 76(2), 357-383. <https://doi.org/10.1111/j.1467-6494.2007.00489.x>
- Diener, E., Lucas, R., Schimmack, U., & Helliwell, J. (2009). *Well-Being for Public Policy*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195334074.001.0001>
- Ghasemkhanloo, A., Atadokht, A., & Sabri, V. (2021). The effectiveness of emotional schema therapy on the severity of depression, emotional dysregulation and emotional schemas in patients with major depressive disorder [Research]. *Shenakht Journal of Psychology and Psychiatry*, 8(3), 76-88. <https://doi.org/10.32598/shenakht.8.3.76>
- Ghasemkhanloo, A., Atadokht, A., & Sabri, V. (2022). The Effectiveness of Emotional Schema Therapy on Severity of Depression and Cognitive Emotional Regulation Strategies in Major Depression Disorder. *nkums-journal*, 14(1), 38-44. <https://doi.org/10.52547/nkums.14.1.38>
- Ghorbani, N., Watson, P. J., & Morris, R. J. (2000). Personality, stress and mental health: evidence of relationships in a sample of Iranian managers. *Personality and individual differences*, 28(4), 647-657. [https://doi.org/10.1016/S0191-8869\(99\)00128-2](https://doi.org/10.1016/S0191-8869(99)00128-2)
- Götze, H., Friedrich, M., Taubenheim, S., Dietz, A., Lordick, F., & Mehnert, A. (2020). Depression and anxiety in long-term survivors 5 and 10 years after cancer diagnosis. *Supportive Care in Cancer*, 28(1), 211-220. <https://doi.org/10.1007/s00520-019-04805-1>
- Grant, K. E., Compas, B. E., Stuhlmacher, A. F., Thurm, A. E., McMahon, S. D., & Halpert, J. A. (2003). Stressors and child and adolescent psychopathology: Moving from markers to mechanisms of risk. *Psychological bulletin*, 129(3), 447-466. <https://doi.org/10.1037/0033-2909.129.3.447>
- Hussein, K. (2021). The relationship between emotional intelligence and academic motivation of pre-university students using the mediating role of mental health. *Management and Educational Perspective*, 3(2), 77-98. <https://doi.org/10.22034/jmep.2021.294708.1060>
- Izadi, F., & Mokhtari, E. (2021). The Effectiveness of Emotional-Focused Couple Therapy on Reducing the Negative Emotion Schemas and Alexithymia as well as Increasing Marital Compatibility [Research]. *International Journal of Psychology (IPA)*, 15(1), 225-255. <http://ijpb.ir/article-1-353-en.html>
- Johnson, A. R., Wolpe, S., Tien, I. S., Muscatello, V. S., & Wood, J. J. (2023). Chapter 16 - Cognitive-behavioral therapy for children with autism and anxiety. In C. R. Martin, V. B. Patel, & V. R. Preedy (Eds.), *Handbook of Lifespan Cognitive Behavioral Therapy* (pp. 181-191). Academic Press. <https://doi.org/10.1016/B978-0-323-85757-4.00007-9>
- Khorasani Zadeh, A., Poursharifi, H., Ranjbaripour, T., Bagheri, F., & Poyamanesh, J. (2019). Structural pattern of the relationship between parent-child relation patterns and early maladaptive schemas with the mediating role of attachment styles. *Quarterly of Applied Psychology*, 13 (1): 55-76. 3. <https://doi.org/10.29252/apsy.13.1.55>
- Leahy, R., & Kaplan, D. (2004). Emotional schemas and relationship adjustment. Paper presented at the annual meeting of the Association for Advancement of Behavior Therapy. .
- Leahy, R. L. (2016). Emotional Schema Therapy: A Meta-experiential Model. *Australian Psychologist*. <https://doi.org/10.1111/ap.12142>
- Mosadegh, H., Darbani, S. A., & Parsakia, K. (2023). The mediating role of sexual satisfaction in the relationship between personality traits and emotional divorce in men. *Journal of Applied Family Therapy*, 4(4), 191-202. [https://www.aftj.ir/article\\_184086.html?lang=en](https://www.aftj.ir/article_184086.html?lang=en)
- Muris, P. (2006). Maladaptive schemas in non-clinical adolescents: relations to perceived parental rearing behaviours, Big Five personality factors and psychopathological symptoms. *Clinical Psychology & Psychotherapy*, 13(6), 405-413. <https://doi.org/10.1002/cpp.506>
- Oussi, A., Hamid, K., & Bouvet, C. (2023). Managing emotions in panic disorder: A systematic review of studies related to emotional intelligence, alexithymia, emotion regulation, and coping. *Journal of Behavior Therapy and Experimental Psychiatry*, 79, 101835. <https://doi.org/10.1016/j.jbtep.2023.101835>
- Peng, W., Liu, Z., Liu, Q., Chu, J., Zheng, K., Wang, J., Wei, H., Zhong, M., Ling, Y., & Yi, J. (2021). Insecure attachment and maladaptive emotion regulation mediating the relationship between childhood trauma and borderline personality features. *Depression and Anxiety*, 38(1), 28-39. <https://doi.org/10.1002/da.23082>
- Pop, R., Tint, D., Pop, C. P., Lupu, L. V., & Mosoiu, D. (2022). Anxiety, Depression and the Burden of Caring for Patients With Palliative Needs - Prospective Longitudinal Study. <https://doi.org/10.21203/rs.3.rs-1260380/v1>
- Rauwenhoff, J. C., Bol, Y., van Heugten, C. M., Batink, T., Geusgens, C. A., van den Hout, A. J., Smits, P., Verwegen, C. R., Visser, A., & Peeters, F. (2023). Acceptance and commitment therapy for people with acquired brain injury: Rationale and description of the BrainACT treatment. *Clinical Rehabilitation*, 37(8), 1011-1025. <https://doi.org/10.1177/02692155231154124>
- Resnick, M. D., Ireland, M., & Borowsky, I. (2004). Youth violence perpetration: What protects? What predicts?

- Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health*, 35(5), 424.e421-424.e410. <https://doi.org/10.1016/j.jadohealth.2004.01.011>
- Schnell, T., & Krampe, H. (2020). Meaning in Life and Self-Control Buffer Stress in Times of COVID-19: Moderating and Mediating Effects With Regard to Mental Distress [Original Research]. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.582352>
- Simard, V., Moss, E., & Pascuzzo, K. (2011). Early maladaptive schemas and child and adult attachment: A 15-year longitudinal study. *Psychology and Psychotherapy: Theory, Research and Practice*, 84(4), 349-366. <https://doi.org/10.1111/j.2044-8341.2010.02009.x>
- Stanton, R., To, Q. G., Khalesi, S., Williams, S. L., Alley, S. J., Thwaite, T. L., Fenning, A. S., Vandelanotte, C. J. I. J. o. E. R., & Health, P. (2020). Depression, Anxiety and Stress during COVID-19: Associations with Changes in Physical Activity, Sleep, Tobacco and Alcohol Use in Australian Adults. *17(11)*, 4065.
- Tremblay, P. F., & Dozois, D. J. A. (2009). Another perspective on trait aggressiveness: Overlap with early maladaptive schemas. *Personality and individual differences*, 46(5), 569-574. <https://doi.org/10.1016/j.paid.2008.12.009>
- Wolters, C., Gerlach, A. L., & Pohl, A. (2022). Interoceptive Accuracy and Bias in Somatic Symptom Disorder, Illness Anxiety Disorder, and Functional Syndromes: A Systematic Review and Meta-Analysis. *PLoS One*. <https://doi.org/10.1371/journal.pone.0271717>
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2006). *Schema therapy: A practitioner's guide*. guilford press. [https://books.google.com/books?hl=en&lr=&id=1x7TDwAAQBAJ&oi=fnd&pg=PP1&dq=29.+Young,+J.+E.,+Klosko,+J.+S.,+%26+Weishaar,+M.+E.+\(2006\).+Schema+therapy:+A+practitioner%27s+guide.+guilford+press.&ots=P0pRjQCOEL&sig=Cn7QpUvV7EJcEevXB0o\\_KachiUU](https://books.google.com/books?hl=en&lr=&id=1x7TDwAAQBAJ&oi=fnd&pg=PP1&dq=29.+Young,+J.+E.,+Klosko,+J.+S.,+%26+Weishaar,+M.+E.+(2006).+Schema+therapy:+A+practitioner%27s+guide.+guilford+press.&ots=P0pRjQCOEL&sig=Cn7QpUvV7EJcEevXB0o_KachiUU)
- Zhang, Y., Bao, X., Yan, J., Miao, H., & Guo, C. (2021). Anxiety and Depression in Chinese Students During the COVID-19 Pandemic: A Meta-Analysis [Systematic Review]. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.697642>