

Article

# Childhood Maltreatment and Depression in University Students: The Serial Mediating Roles of Vulnerable Narcissism and Rejection Sensitivity

Xiao Han<sup>1,\*</sup>

<sup>1</sup> Fujian Normal University, Fuzhou, Fujian, China

\* Correspondence: Xiao Han, Fujian Normal University, Fuzhou, Fujian, China

**Abstract:** Childhood maltreatment is a pervasive early-life stressor that has been consistently linked to depressive symptoms in adulthood. However, the interpersonal and personality mechanisms underlying this association remain insufficiently integrated. Drawing on self-psychology and interpersonal theories of depression, the present study examined whether vulnerable narcissism, grandiose narcissism, and rejection sensitivity mediate the relationship between childhood maltreatment and depression among university students. A total of 486 Chinese undergraduate and graduate students completed validated self-report measures of childhood maltreatment, pathological narcissism, rejection sensitivity, and depressive symptoms. Structural equation modeling was conducted to test multiple and serial mediation effects. The results indicated that childhood maltreatment positively predicted depression. Vulnerable narcissism and rejection sensitivity independently mediated this association, and a significant serial mediation pathway was observed from childhood maltreatment to depression via vulnerable narcissism and rejection sensitivity. In contrast, grandiose narcissism was not significantly associated with childhood maltreatment or depression in the model. These findings suggest that childhood maltreatment contributes to depressive symptoms primarily through maladaptive self-related vulnerability and heightened interpersonal sensitivity to rejection.

**Keywords:** childhood maltreatment; vulnerable narcissism; rejection sensitivity; depression

## 1. Introduction

Published: 05 January 2026



Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Childhood maltreatment (CM) constitutes a major global public health concern and encompasses emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Epidemiological evidence indicates that CM is highly prevalent worldwide and remains common in China, with emotional and physical abuse affecting a substantial proportion of children and adolescents [1,2]. Accumulating research has demonstrated that CM exerts long-lasting effects on emotional regulation, cognition, and interpersonal functioning, thereby increasing vulnerability to mental health problems in adulthood [3]. Among these outcomes, depression represents one of the most prevalent and disabling consequences of CM.

Although the association between CM and depression is well established, the mechanisms through which early maltreatment confers long-term risk remain incompletely understood. Prior research has highlighted cognitive vulnerabilities, attachment insecurity, and emotion dysregulation as important pathways [4]. However, fewer studies have integrated personality pathology and interpersonal sensitivity into a unified framework. From a psychodynamic and interpersonal perspective, CM may disrupt the development of a cohesive self and heighten sensitivity to social threat, thereby increasing depressive vulnerability. The present study focuses on pathological

narcissism and rejection sensitivity as two theoretically relevant mechanisms linking CM to depression.

### *1.1. Childhood Maltreatment and Depression*

As an early and chronic stressor, CM has enduring adverse effects across the lifespan. Longitudinal and retrospective studies consistently show that individuals exposed to CM are at elevated risk for depressive symptoms and major depressive disorder in adolescence and adulthood [5,6]. Meta-analytic evidence suggests that CM approximately doubles the risk of later depression, with emotional abuse and emotional neglect showing particularly strong associations [7]. Furthermore, CM has been linked to an earlier onset, greater chronicity, and increased severity of depressive symptoms [8]. These findings support the assumption that CM is a robust predictor of depression among young adults. Accordingly, the present study hypothesizes that CM positively predicts depressive symptoms in university students.

### *1.2. Pathological Narcissism as a Mediator*

Narcissism refers to self-focused personality characteristics that range from adaptive self-regard to pathological dysfunction. Contemporary models conceptualize pathological narcissism as comprising two distinct but related dimensions: grandiose narcissism and vulnerable narcissism [9]. Grandiose narcissism is characterized by overt self-importance, entitlement, and dominance, whereas vulnerable narcissism involves fragile self-esteem, hypersensitivity to evaluation, shame, and interpersonal withdrawal [10].

Psychoanalytic theories emphasize the role of early caregiving experiences in the development of pathological narcissism. According to self-psychology, empathic failures by caregivers undermine the formation of a cohesive self, leading individuals to rely on maladaptive narcissistic defenses [11]. Empirical studies and recent meta-analyses have shown that CM is positively associated with pathological narcissism, particularly vulnerable narcissism [12].

Narcissism has long been linked to depression in psychodynamic theory, and empirical research supports this association. Vulnerable narcissism has been consistently associated with depressive symptoms in both clinical and non-clinical samples, whereas findings for grandiose narcissism are mixed [13,14]. Individuals high in vulnerable narcissism tend to experience chronic shame, helplessness, and interpersonal distress, which may predispose them to depression. Based on these findings, the present study proposes that pathological narcissism, especially vulnerable narcissism, mediates the relationship between CM and depression.

### *1.3. Rejection Sensitivity as a Mediator*

Rejection sensitivity (RS) is defined as a defensive tendency to anxiously expect, readily perceive, and overreact to social rejection [15]. Interpersonal theories of depression identify RS as a stable vulnerability factor that contributes to depressive symptoms by shaping maladaptive social cognition and emotional responses [16].

RS is thought to originate from early experiences of rejection or neglect, suggesting a close link with CM. Caregivers' abusive or emotionally unavailable behaviors may signal rejection to children, fostering heightened vigilance to interpersonal threat. Empirical studies have demonstrated positive associations between CM and RS across diverse samples [17]. Moreover, individuals with high RS exhibit negative attentional biases, hostile attribution styles, and exaggerated emotional reactions, all of which are associated with depression [18]. Prior research has shown that RS mediates the relationship between emotional abuse and depressive symptoms [19]. Therefore, RS is expected to mediate the association between CM and depression.

#### *1.4. Serial Mediation of Narcissism and Rejection Sensitivity*

Theoretical integration suggests that pathological narcissism and RS may operate sequentially. Vulnerable narcissism is characterized by entitlement combined with a fragile self-concept and excessive dependence on external validation. Such individuals hold high expectations for acceptance but have low tolerance for rejection, rendering them particularly sensitive to interpersonal threat [20]. Empirical evidence indicates that vulnerable narcissism is positively associated with RS [21]. Chronic interpersonal hypersensitivity and perceived rejection may, in turn, erode social support and intensify depressive symptoms. Accordingly, the present study proposes a serial mediation model in which CM predicts depression through vulnerable narcissism and subsequent RS. Given inconsistent findings regarding grandiose narcissism, both narcissism dimensions are examined simultaneously to clarify their distinct roles.

## **2. Method**

### *2.1. Participants and Sampling Procedure*

Participants were recruited from undergraduate and graduate courses offered to students majoring in disciplines other than psychology at Fujian Normal University. Recruitment was conducted at the class level to ensure standardized administration conditions and to minimize disruptions to regular teaching activities. All participants took part on a voluntary basis and completed the questionnaires collectively during scheduled class sessions under unified instructions.

A total of 515 paper-and-pencil questionnaires were distributed. After data screening, 29 questionnaires were excluded due to substantial missing responses or identifiable response patterns indicative of inattentive completion. As a result, 486 valid questionnaires were retained for subsequent analyses, yielding an effective response rate of 94.4%. This high response rate indicates good participant engagement and data quality.

The final sample consisted of 157 male students and 329 female students. Participants ranged in age from 18 to 27 years, with a mean age of 21.17 years. The sample included both undergraduate and graduate students, reflecting a relatively broad range of academic stages within the university population. This demographic composition is consistent with the research aim of examining psychological characteristics among young adults in an educational context.

### *2.2. Measures*

#### *2.2.1. Childhood Maltreatment*

Childhood maltreatment was assessed using the Childhood Trauma Questionnaire-Short Form. This instrument is designed to retrospectively evaluate adverse experiences occurring during childhood and adolescence. It comprises five subscales that measure emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Each subscale captures a distinct dimension of early adverse experiences, allowing for a multidimensional assessment of childhood maltreatment.

Participants responded to each item using a standardized Likert-type scale, indicating the frequency or severity of specific experiences. Higher scores reflect greater levels of reported childhood adversity. In the present study, the questionnaire demonstrated satisfactory internal consistency across all subscales, supporting its reliability for use in the current sample.

#### *2.2.2. Pathological Narcissism*

Pathological narcissism was measured using the Super Brief Pathological Narcissism Inventory. This scale assesses two core dimensions of pathological narcissism: vulnerable narcissism and grandiose narcissism. Vulnerable narcissism reflects hypersensitivity,

insecurity, and emotional instability, whereas grandiose narcissism captures traits related to entitlement, superiority, and self-enhancement.

The instrument consists of concise items designed to efficiently capture these dimensions while maintaining acceptable psychometric properties. Participants rated their agreement with each statement using a Likert-type response format. In the present sample, both subscales demonstrated acceptable to excellent internal consistency, indicating that the measure reliably assessed pathological narcissism traits among college students.

#### 2.2.3. Rejection Sensitivity

Rejection sensitivity was assessed using the Chinese version of the Rejection Sensitivity Questionnaire for College Students. This scale evaluates individuals' tendencies to anxiously expect, readily perceive, and intensely react to potential interpersonal rejection in everyday social situations. The questionnaire presents a series of hypothetical scenarios relevant to college life, followed by items assessing emotional and cognitive reactions.

Participants provided ratings that reflect both their level of concern about rejection and their expectations of rejection outcomes. Composite scores were calculated in accordance with established scoring procedures. The scale demonstrated good internal consistency in the current sample, supporting its suitability for assessing rejection sensitivity in a university student population.

#### 2.2.4. Depressive Symptoms

Depressive symptoms were measured using the Beck Depression Inventory-II. This instrument is widely used to assess the severity of depressive symptoms experienced over the past two weeks. It includes items covering affective, cognitive, and somatic aspects of depression, providing a comprehensive assessment of depressive symptomatology.

Participants selected statements that best described their recent experiences, with higher total scores indicating more severe depressive symptoms. In the present study, the scale exhibited excellent internal consistency, indicating high reliability for measuring depressive symptoms in this sample.

### 2.3. Procedure and Data Analysis

Data collection was conducted in group settings within classrooms. Prior to questionnaire administration, participants received standardized instructions emphasizing voluntary participation and the importance of honest responses. Questionnaires were completed anonymously to reduce social desirability effects and to enhance response authenticity.

After data collection, all responses were coded and entered into statistical software for analysis. SPSS 27.0 was used to conduct descriptive statistics, including means, standard deviations, and correlation analyses among key variables. In addition, common method bias was examined using appropriate statistical procedures to evaluate potential method-related variance.

Structural equation modeling and mediation analyses were performed using Mplus 8.0. Bias-corrected bootstrap procedures were applied to test the significance of indirect effects, providing robust estimates of mediation pathways. These analytical approaches allowed for a comprehensive examination of both direct and indirect relationships among childhood maltreatment, pathological narcissism, rejection sensitivity, and depressive symptoms.

### 3. Results

#### 3.1. Common Method Bias and Descriptive Statistics

Prior to hypothesis testing, common method bias was examined using Harman's single-factor test. The results indicated that the first unrotated factor accounted for less than 40% of the total variance, suggesting that common method bias was not a serious concern in the present study. Therefore, the data were considered suitable for subsequent correlation and structural analyses.

As shown in Table 1, descriptive statistics, including means and standard deviations, were calculated for all study variables. Childhood maltreatment, vulnerable narcissism, grandiose narcissism, rejection sensitivity, and depression all showed acceptable variability, indicating that the measures captured sufficient individual differences within the sample. The distribution of scores did not reveal any extreme deviations that would compromise the reliability of further analyses.

**Table 1.** Descriptive statistics and correlations of the investigated variables.

	Variable	M	SD	1	2	3	4	5
1	Childhood maltreatment	35.23	9.08	-				
2	Vulnerable narcissism	11.53	6.29	0.217***	-			
3	Grandiose narcissism	16.41	6.13	0.008	0.605***	-		
4	Rejection sensitivity	152.28	81.53	0.280***	0.397***	0.201***	-	
5	Depression	7.30	7.72	0.292***	0.395***	0.234***	0.347***	-

Pearson correlation analyses revealed a clear pattern of associations among the key variables. Childhood maltreatment was positively correlated with vulnerable narcissism, rejection sensitivity, and depressive symptoms, indicating that higher levels of adverse childhood experiences were associated with increased psychological vulnerability in young adulthood. In contrast, the correlation between childhood maltreatment and grandiose narcissism was weak and not statistically significant.

#### 3.2. Correlation Patterns Among Key Variables

Further examination of the correlation matrix indicated that vulnerable narcissism was positively associated with both rejection sensitivity and depression. This finding suggests that individuals with higher levels of vulnerable narcissistic traits tend to exhibit heightened sensitivity to interpersonal rejection and report more depressive symptoms. Rejection sensitivity was also positively correlated with depression, indicating a close relationship between interpersonal sensitivity and emotional distress.

Although grandiose narcissism was significantly correlated with vulnerable narcissism and rejection sensitivity, its associations with childhood maltreatment and depression were comparatively weaker. Notably, grandiose narcissism did not show a significant correlation with childhood maltreatment, suggesting that this dimension of narcissism may be less directly linked to early adverse experiences in the present sample.

Overall, the correlation results provided preliminary support for the proposed relationships among childhood maltreatment, vulnerable narcissism, rejection sensitivity, and depression, thereby justifying further examination using structural equation modeling.

#### 3.3. Structural Equation Modeling and Mediation Effects

Structural equation modeling was conducted to test the hypothesized pathways linking childhood maltreatment to depressive symptoms. In the initial model without

mediators, childhood maltreatment significantly predicted depression ( $\beta = 0.353$ ,  $t = 15.588$ ,  $SE = 0.024$ ,  $p < 0.001$ ), indicating a robust direct association between early adverse experiences and current depressive symptoms.

When vulnerable narcissism and rejection sensitivity were included as mediators, the overall model demonstrated acceptable fit indices ( $\chi^2/df = 4.16$ ,  $CFI = 0.944$ ,  $TLI = 0.920$ ,  $RMSEA = 0.081$ ,  $SRMR = 0.049$ ). These results suggest that the proposed mediation model adequately represented the observed data.

Bootstrap analyses indicated that vulnerable narcissism exhibited a significant indirect effect in the association between childhood maltreatment and depression ( $\beta = 0.088$ ,  $t = 2.934$ ,  $SE = 0.030$ ,  $p = 0.003$ ; 95% CI [0.040, 0.158]), accounting for 24% of the total effect. Rejection sensitivity also showed an indirect effect ( $\beta = 0.029$ ,  $t = 1.611$ ,  $SE = 0.018$ ,  $p = 0.107$ ; 95% CI [0.006, 0.083]), accounting for 8% of the total effect.

In addition, a serial mediation pathway from childhood maltreatment to depression through vulnerable narcissism and rejection sensitivity was observed ( $\beta = 0.023$ ,  $t = 1.885$ ,  $SE = 0.012$ ,  $p = 0.059$ ; 95% CI [0.005, 0.058]), accounting for 6.4% of the total effect. This finding suggests that childhood maltreatment may contribute to depressive symptoms by increasing vulnerable narcissistic traits, which in turn heighten sensitivity to interpersonal rejection.

In contrast, grandiose narcissism did not show significant paths to either rejection sensitivity or depression in the structural model, indicating that this dimension did not play a mediating role in the relationship between childhood maltreatment and depressive symptoms.

#### 4. Discussion

The present study examined the mechanisms linking childhood maltreatment to depression by integrating pathological narcissism and rejection sensitivity within a serial mediation framework. Consistent with prior research, CM was found to positively predict depressive symptoms. Importantly, vulnerable narcissism and rejection sensitivity independently and sequentially mediated this association, whereas grandiose narcissism did not play a significant role.

Vulnerable narcissism emerged as a key intermediary between CM and depression. This finding aligns with previous evidence indicating that early emotional neglect and abuse foster a fragile self-concept marked by shame, helplessness, and interpersonal sensitivity [22]. Such characteristics render individuals more susceptible to depressive affect.

Rejection sensitivity also mediated the relationship between CM and depression. Early maltreatment may shape negative internal working models, leading individuals to anticipate rejection and respond with heightened emotional distress in social contexts. This chronic interpersonal stress may, in turn, contribute to depressive symptoms.

The serial mediation results further suggest that vulnerable narcissism increases sensitivity to rejection, which subsequently exacerbates depression. This pathway underscores the importance of considering self-related vulnerability and interpersonal cognition jointly when examining the long-term consequences of CM.

Grandiose narcissism was not significantly associated with CM or depression in the model. This finding supports recent work suggesting that subclinical grandiose narcissism may be unrelated or even inversely related to internalizing symptoms when vulnerable narcissism is controlled [23].

This study demonstrates that childhood maltreatment contributes to depressive symptoms among university students primarily through vulnerable narcissism and rejection sensitivity. The findings highlight vulnerable narcissism as a critical personality-based risk factor and underscore the role of interpersonal sensitivity in the development of depression. Interventions targeting maladaptive self-processes and rejection-related

cognition may be particularly beneficial for individuals with adverse childhood experiences.

Several limitations should be noted. The reliance on retrospective self-report measures may introduce recall bias. The cross-sectional design precludes causal inference. Additionally, the sample consisted of students from a single university, limiting generalizability. Future longitudinal and multi-method studies are needed to clarify causal pathways and extend these findings to clinical populations.

## 5. Conclusion

The present study examined the association between childhood maltreatment and depressive symptoms among university students and clarified the underlying psychological mechanisms by incorporating pathological narcissism and rejection sensitivity into a serial mediation model. The findings indicate that childhood maltreatment is an important risk factor for depression in young adulthood, and its effects are primarily transmitted through vulnerable narcissism and rejection sensitivity rather than through grandiose narcissism.

Specifically, the results demonstrate that vulnerable narcissism plays a central role in linking early adverse experiences to later depressive symptoms. Individuals who experienced higher levels of childhood maltreatment tend to develop a more fragile and unstable self-concept, which increases emotional vulnerability and contributes to depressive outcomes. In addition, rejection sensitivity was found to be another key mechanism, reflecting heightened interpersonal vigilance and emotional reactivity that further intensify depressive symptoms.

The identification of a serial mediation pathway suggests that childhood maltreatment may first influence self-related vulnerability, which subsequently shapes maladaptive interpersonal expectations and emotional responses. This combined effect highlights the importance of considering both intrapersonal personality characteristics and interpersonal cognitive processes when understanding the long-term psychological consequences of adverse childhood experiences.

Overall, this study contributes to the existing literature by providing an integrated explanatory framework for the relationship between childhood maltreatment and depression in a non-clinical university student population. The findings suggest that preventive and supportive efforts may benefit from focusing on reducing maladaptive self-processes and improving interpersonal cognitive patterns among individuals with adverse childhood experiences. By addressing these psychological mechanisms, it may be possible to alleviate depressive symptoms and promote more adaptive emotional functioning in young adulthood.

## References

1. S. Hillis, J. Mercy, A. Amobi, and H. Kress, "Global prevalence of past-year violence against children: a systematic review and minimum estimates," *Pediatrics*, vol. 137, no. 3, p. e20154079, 2016. doi: 10.1542/peds.2015-4079
2. L. Wang, H. Cheng, Y. Qu, Y. Zhang, Q. Cui, and H. Zou, "The prevalence of child maltreatment among Chinese primary and middle school students: a systematic review and meta-analysis," *Social psychiatry and psychiatric epidemiology*, vol. 55, no. 9, pp. 1105-1119, 2020. doi: 10.1007/s00127-020-01916-7
3. C. Heim, M. Shugart, W. E. Craighead, and C. B. Nemeroff, "Neurobiological and psychiatric consequences of child abuse and neglect," *Developmental psychobiology*, vol. 52, no. 7, pp. 671-690, 2010. doi: 10.1002/dev.20494
4. J. R. Abela, and S. A. Skitch, "Dysfunctional attitudes, self-esteem, and hassles: Cognitive vulnerability to depression in children of affectively ill parents," *Behaviour research and therapy*, vol. 45, no. 6, pp. 1127-1140, 2007. doi: 10.1016/j.brat.2006.09.011
5. V. J. Felitti, R. F. Anda, D. Nordenberg, D. F. Williamson, A. M. Spitz, V. Edwards, and J. S. Marks, "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study," *American journal of preventive medicine*, vol. 14, no. 4, pp. 245-258, 1998.
6. C. S. Widom, K. DuMont, and S. J. Czaja, "A prospective investigation of major depressive disorder and comorbidity in abused and neglected children grown up," *Archives of general psychiatry*, vol. 64, no. 1, pp. 49-56, 2007.

7. M. Li, C. D'arcy, and X. Meng, "Maltreatment in childhood substantially increases the risk of adult depression and anxiety in prospective cohort studies: systematic review, meta-analysis, and proportional attributable fractions," *Psychological medicine*, vol. 46, no. 4, pp. 717-730, 2016.
8. P. Spinhoven, B. M. Elzinga, A. M. Van Hemert, M. de Rooij, and B. W. Penninx, "Childhood maltreatment, maladaptive personality types and level and course of psychological distress: A six-year longitudinal study," *Journal of affective disorders*, vol. 191, pp. 100-108, 2016. doi: 10.1016/j.jad.2015.11.036
9. Z. Krizan, "The narcissism spectrum model: A spectrum perspective on narcissistic personality," In *Handbook of trait narcissism: Key advances, research methods, and controversies*, 2018, pp. 15-25. doi: 10.1007/978-3-319-92171-6\_2
10. A. L. Pincus, N. M. Cain, and A. G. Wright, "Narcissistic grandiosity and narcissistic vulnerability in psychotherapy," *Personality Disorders: Theory, Research, and Treatment*, vol. 5, no. 4, p. 439, 2014.
11. T. R. Sarbin, "A preface to a psychological analysis of the self," *Psychological Review*, vol. 59, no. 1, p. 11, 1952.
12. S. Gao, D. Yu, M. Assink, K. L. Chan, L. Zhang, and X. Meng, "The association between child maltreatment and pathological narcissism: A three-level meta-analytic review," *Trauma, Violence, & Abuse*, vol. 25, no. 1, pp. 275-290, 2024. doi: 10.1177/15248380221147559
13. S. M. Tritt, A. G. Ryder, A. J. Ring, and A. L. Pincus, "Pathological narcissism and the depressive temperament," *Journal of Affective Disorders*, vol. 122, no. 3, pp. 280-284, 2010. doi: 10.1016/j.jad.2009.09.006
14. S. Dawood, and A. L. Pincus, "Pathological narcissism and the severity, variability, and instability of depressive symptoms," *Personality Disorders: Theory, Research, and Treatment*, vol. 9, no. 2, p. 144, 2018.
15. G. Downey, and S. I. Feldman, "Implications of rejection sensitivity for intimate relationships," *Journal of personality and social psychology*, vol. 70, no. 6, p. 1327, 1996.
16. O. Ayduk, G. Downey, and M. Kim, "Rejection sensitivity and depressive symptoms in women," *Personality and Social Psychology Bulletin*, vol. 27, no. 7, pp. 868-877, 2001. doi: 10.1177/0146167201277009
17. A. Erozkan, "The childhood trauma and late adolescent rejection sensitivity," *The Anthropologist*, vol. 19, no. 2, pp. 413-422, 2015. doi: 10.1080/09720073.2015.11891675
18. J. M. Chango, K. B. McElhaney, J. P. Allen, M. M. Schad, and E. Marston, "Relational stressors and depressive symptoms in late adolescence: Rejection sensitivity as a vulnerability," *Journal of abnormal child psychology*, vol. 40, no. 3, pp. 369-379, 2012. doi: 10.1007/s10802-011-9570-y
19. C. M. S. Martins, C. V. W. Baes, S. M. de Carvalho Tofoli, and M. F. Juruena, "Emotional abuse in childhood is a differential factor for the development of depression in adults," *The Journal of nervous and mental disease*, vol. 202, no. 11, pp. 774-782, 2014.
20. K. A. Dickinson, and A. L. Pincus, "Interpersonal analysis of grandiose and vulnerable narcissism," *Journal of personality disorders*, vol. 17, no. 3, pp. 188-207, 2003. doi: 10.1521/pedi.17.3.188.22146
21. E. Rohmann, E. Neumann, M. J. Herner, and H. W. Bierhoff, "Grandiose and vulnerable narcissism," *European Psychologist*, 2012.
22. B. Xu, S. Wei, X. Yin, X. Jin, S. Yan, and L. Jia, "The relationship between childhood emotional neglect experience and depressive symptoms and prefrontal resting functional connections in college students: the mediating role of reappraisal strategy," *Frontiers in behavioral neuroscience*, vol. 17, p. 927389, 2023. doi: 10.3389/fnbeh.2023.927389
23. K. A. Papageorgiou, A. Denovan, N. Dagnall, E. Hill-Artamonova, F. M. Giannou, S. Papageorgiou, and G. Costantini, "Grandiose narcissism indirectly associates with lower psychopathology across five countries," *Journal of psychiatric research*, vol. 167, pp. 78-85, 2023.

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of SOAP and/or the editor(s). SOAP and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.