

## Investigating the relationship between early maladaptive schemas and narcissism in students

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Received: 2021/01/18

Accepted: 2021/02/18

### Abstract

A narcissistic personality disorder is one of the most difficult personality patterns to treat. People with the narcissistic disorder cannot express their weaknesses and understand the impact of their behavior on others. The goal of the study is to investigate the relationship between early maladaptive schemas and narcissistic personality characteristics. So, 225 male and female undergraduate, graduate, and doctoral students were selected by availability sampling from the students of Urmia University in the academic year 2019-2020 (N = 17000). All participants filled the Young schema questionnaire and the Ames narcissistic personality questionnaire. The data were analyzed by SPSS software version 22 using the Pearson correlation coefficient. The results of data analysis showed, there is a positive and significant correlation between early maladaptive schemas and narcissistic personality characteristics (R = 0.663). In other words, with an increase in early maladaptive schemas, the narcissistic personality characteristic also increases and vice versa (43% of common variance). The findings of the research can help and create a context for further and comprehensive research in this area.

### Keywords

Narcissistic personality disorder  
Grandiose narcissism  
Early maladaptive schema

### Introduction

The narcissistic personality disorder is characterized by a measure of self-superiority (in the world of fantasy or behavior), the need for admiration, and lack of social empathy in its clinical picture, which begins in adulthood is seen in various contexts (O'Reilly IIIa and Doerr, 2020). Narcissism can potentially manifest in vulnerable and grandiose forms (Zajenkowski and Fronczyk, 2020). The indicators of grandiose narcissism, according to psychologists, are the same as a narcissistic personality disorder (Hart et al, 2019). In DSM-5, the prevalence of NPD is estimated between zero and 6.2 percent (American Psychiatric Association, 2013). Some studies suggest that NPD is more common in men, however, its prevalence has been considered equal between the sexes in other studies (Ronningstam, 2013). The prevailing view of the

cause of narcissism is rooted in the psychoanalytic theory that narcissists are fragile in self-esteem and vulnerable to shame. According to this conceptualization, grandiose narcissists compensate for the inner feelings of inadequacy. (Leggio, 2018). On the other hand, the concept of schemas has attracted a lot of attention in several mental disorders. Schemas are at the core of personality disorders (Schema Therapy, 2011; translated by Hamidpour Vandoz, 2018) and are often the main cause of several psychological disorders in adulthood (Hawke and Provencher, 2012). Early maladaptive schemas are widespread, self-injurious, and pervasive patterns that begin in childhood and are repeated throughout a person's life. According to the definition, early maladaptive schemas include memories, emotions, cognitions, and physical emotions. Besides, they include how a person conceptualizes himself and personal

relationships with others. These maladaptive schemas differ in the scale of learning intensity and activation frequency (Sullivan, 2016). Early maladaptive schemas are divided into five areas: Disconnection and Rejection, Impaired Autonomy and Performance, Impaired Limits, Other- Directedness, Over vigilance/Inhibition (Gong and Chan, 2018). A review of research background shows many early maladaptive schemas can play a special role in the development of narcissistic personality characters. As Zeigler-Hill et al (2011) showed in their study, both normal and vulnerable forms of narcissism have a positive relationship with the entitlement schema. Also, Zabeti and Jafari (2018) showed in a study that the relationship between early maladaptive schemas and narcissism can be point indirectly and through an intermediate variable. In other words, their findings indicate the indirect effect of the early maladaptive schema on narcissism.

Also, Starbird and Story (2020) in a study showed that the effect of early maladaptive schema on narcissism is negligible. Understanding narcissism is now very important as a growing characteristic among young people (Freis, 2017) People with narcissistic personality disorder show significant deficiencies in the interpersonal emotional component, which plays a vital role in mental and intellectual disorders (Marcoux et al, 2014). But cognitive empathy in this disorder remains intact (Marissen et al, 2012). On the other hand, people with narcissism are prone to increased irritability to anger in response to failure and social rejection (Faccini and Allely, 2016). Although narcissists are very weak in establishing and maintaining relationships (Fang and Chung, 2019), it is important to discover the roots of these behaviors, because many factors are involved in the emergence and development of narcissistic personality disorder. So, the purpose of this study is to investigate the relationship and effect of early maladaptive schemas on the formation of narcissistic personality characters because of the little research that has been done in this field and some kind of paradoxical result in previous research. Therefore, according to the issues mentioned, the present study seeks to answer the question of whether the early maladaptive schema is related to the narcissistic personality characteristic

## Method

### Participants

The research method of the present study is a descriptive-correlational according to its subject.

The population of the research was all students of Urmia University in the academic year 2019-2020 (N=17,000). 225 male and female undergraduate, graduate, and doctoral students were selected through availability sampling to complete the Young Schema

Questionnaire and the Ames Narcissistic Personality Questionnaire.

The inclusion criteria of the sample in the present study were satisfaction and willingness to participate in the study and the exclusion criteria were the reluctance to participate in the study. All participants were also assured that their information was confidential. The data were analyzed by Pearson correlation coefficient using inferential statistics with SPSS software version 22.

### Instrument

#### *Young Schematic Questionnaire (SQ-SF)*

The short form of the Early maladaptive Schemas Questionnaire (SQ-SF) is a 75-item tool developed by Young (1998) to assess 15 early maladaptive schemas of Mistrust/Abuse, Emotional deprivation, Abandonment/Instability, Defect/ Shame, Social Isolation/Alienation, Dependence/ Incompetence, Vulnerability to Harm or Illness, Enmeshment/Undeveloped Self, Vulnerability to Illness or Harm, Undeveloped/ Caught, Failure, Eligibility/ Grandiose, Insufficient Self-Control/ Self-discipline, Obedience, Acting out, Emotional Inhibition, Unrelenting Standards/Hyper criticalness. Each of the 75 items on this questionnaire is graded on a 6-point scale from 1 (completely false about me) to 6 (completely true about me). In this questionnaire, each of the 5 items measures a schema. If the average of each subscale is higher than 25, that schema is inefficient. The first comprehensive study on the psychometric properties of the early maladaptive Schema Questionnaire by Schmidt et al (1995) showed that the range of Cronbach's alpha coefficients ranged from 0.83 (for the Enmeshment/ Undeveloped Self schema) to 0.96 (for the defect/ defect/ same schema) is located and the retest coefficient in the nonclinical population is between 0.50 and 0.82. The functional structure of the questionnaire also confirmed the existence of 15 early maladaptive schemas that were consistent with the results that Young (1990) had developed based on clinical work. Numerous studies support the valid and satisfactory validity of the short form of the initial maladaptive schema questionnaire (Stopa et al., 2001; Hoffart et al., 2005; Baranoff et al., 2007). A preliminary study of psychometric properties of the Persian version of this questionnaire in a sample of the student population (N = 387) reports Cronbach's alpha coefficient of schemas between 0.69 to 0.83 (Ahi et al., 2007). The construct validity and factor structure of the questionnaire have been confirmed in studies conducted on Iranian samples (Ahi et al., 2007; Sadoughi et al., 2009). Moreover, the reliability coefficient of this questionnaire in the present study was calculated by Cronbach's alpha method and the value of 0.76 was obtained, which indicates the optimal validity of this measurement tool.

### Ames narcissistic personality questionnaire (NPI-16)

This questionnaire is an abbreviated version of the 40-item narcissistic personality questionnaire developed by Ames et al (2006) to assess the characteristics related to narcissistic personality in non-clinical groups, has been. This questionnaire has no subscale and evaluates narcissism based on a one-dimensional approach. The 16-item narcissistic personality questionnaire consists of pairs of items that the respondent must choose one of them. For each item selected from row A, one points is given and for each item selected from row B, zero points are considered. Interpretation based on the score of the questionnaire is such that the score will have a range from 0 to 16. A higher score would indicate higher narcissism and vice versa. As a cut-off point, a score of 8 or higher indicates a narcissistic personality in the individual. The retest reliability coefficients reported by the main test manufacturers during the 5 weeks are 0.85. Convergent validity has been done by calculating the correlation coefficient between the scores of the 16-item narcissistic personality questionnaire and the scores obtained from the extroversion and openness indices to the new experiences of the 5 major personality factors scale. These coefficients have been calculated to be 0.32 for extraversion indices and 0.41 for openness to new experiences. This questionnaire was validated by Mohammadzadeh (2009) in a cross-sectional field study of 342 students in 2008 in the Iranian community. The correlation coefficient between the scores of the NPI-16 narcissistic personality questionnaire and MCMI-II narcissism scale was equal to 0.77 and was significant. The reliability coefficient of the retest, correlation coefficient in determining the halving reliability, and Cronbach's alpha coefficient in measuring internal consistency were calculated 74.84, 0.0 and 0.79, respectively, and it was shown that in the Iranian population, a suitable and short tool for screening in Research related to narcissism. The reliability coefficient of this questionnaire in the current study was calculated by Cronbach's alpha method and the value of 0.81 was obtained, which indicates the optimal validity of this measurement tool.

## Results

**Table 1.** Mean and standard deviation of students in the variable of early maladaptive schemas and its components and narcissism

SD	M	N	Variables / components
11.75	67.13	225	Disconnection and Rejection area
8.04	44.31	225	Impaired Autonomy and Performance area
6.36	36.67	225	Impaired Limits area
9.12	48.34	225	Other- Directedness area
10.11	51.01	225	Over vigilance/Inhibition Area
41.23	249.33	225	Total score of maladaptive schema
1.49	8.19	225	Narcissism

As can be seen in Table 1, in the studied samples, respectively the mean (standard deviation) of the total score of the maladaptive schematic variable is 249.33 ( $\pm 41.23$ ), and in the narcissistic variable 8.19 ( $\pm 1.49$ ).

**Table 2.** Kolmogorov-Smirnov test, a single sample to assume that the statistical population is normal

maladaptive schema	Narcissism	Test
225	225	Total
0.065	0.071	Most definitive
0.046	0.071	Positive
-0.063	-0.063	Negative
0.498	0.577	Kolmogorov-Smirnov test
0.552	0.596	Significance level (sig)

Before performing the parametric Pearson correlation coefficient test, the Kolmogorov-Smirnov test was used to test the hypothesis of normality of the data. As the result given in Table 2, the Kolmogorov-Smirnov z statistic is not significant for the narcissistic variables and the initial maladaptive schemas of 0.577-0.498 at the level ( $p \leq .05$ ) that is the distribution Variables are normal among the sample with its distribution in the statistical population. Levin test F statistic also showed that the variances are equal and therefore this assumption has been attention.

**Table 3.** Descriptive indices and Pearson correlation matrix of research variables

2	1	(SD)M	Variable
1	0.663**	( $\pm 1.49$ )8.19 ( $\pm 41.23$ )249.33	Narcissism maladaptive schema

\*\*The relationship is significant at the 99% level

\*The relationship is significant at the 95% level

The results of the Pearson correlation coefficient based on Table 3 are presented as follows; There is a positive and significant relationship between early maladaptive schemas and narcissistic personality characters ( $R = 0.663$ ). So that there is a significant direct and positive relationship between these two variables. In other words, with increasing narcissistic personality characteristics, the early maladaptive schemas also increase and vice versa (43% of common variance). Therefore, based on the results of this research, it can be concluded that there is a significant positive relationship between early maladaptive schemas and narcissistic personality characteristics, and the hypothesis of the present study is confirmed

## Discussion

The results of the Pearson correlation coefficient showed that there is a positive and significant relationship between early maladaptive schemas and narcissistic personality character ( $R = 0.663$ ). This means that with increasing narcissistic personality characteristics, the early maladaptive schemas also increase and vice versa (43% of common variance). Moreover, based on the results of the research, it can be concluded that there is a significant positive relationship between early maladaptive schemas

and narcissistic personality traits, and the hypothesis of the present study is confirmed. The result of the hypothesis is consistent with the results of Zeigler-Hill et al (2011) and Torshabi (2016), but was inconsistent with the results of Starbird and Story (2020). As Zeigler-Hill et al (2011) showed in their research, both normal and vulnerable forms of narcissism are associated with the entitlement/Grandiose scheme. They also presented that all scales of narcissism have a positive relationship with the schema of righteousness and also stated that vulnerable narcissism was the only form of narcissism that has a positive relationship with the schema of obedience. In explaining the results, the Young (2003) schema model can be used to better understand the findings of the present study. Young's (2011) schema model focuses on how schemas relate to pathology and consider early maladaptive schemas as the basis for the development of mental disorders. It can be said that the existence of early maladaptive schemas that are born of the irrational behavior of those around the child, on the structure of personality in adulthood by forming defense mechanisms and inflexible adaptive methods, provide the necessary foundations for the emergence of a narcissistic personality. Therefore, if the conditions in adulthood are such that the early maladaptive schema is activated, it can accelerate the emergence of narcissistic personality characters. Thus, each schema acts as a lens through which the world around us is perceived by narcissists, so delusional expectations such as a sense of superiority, an extreme need for approval and praise, and exploitation and sensitivity to criticism due to low self-esteem produce and reproduce in them.

They also experience a lack of empathy and distrust of others, mainly due to emotional inhibition. Since these people believe that they are worthless and avoid close relationships with them for fear of being humiliated by others. As a matter of fact, narcissism is a compensatory strategy for early maladaptive schemas.

## Conclusion

We can conclude that cognitive-executive functions both in type and quality or being better or worse are related to different regions of the brain. Although it is not possible to study and assess cerebral capacity proportionate to each activity comprehensively, we can use different tests to assess the levels of cognitive-executive functions and this in turn paved the way to discover some mechanisms related to actions and brain. These findings indicated that students with learning disability have some weaknesses in cognitive-executive functions related to frontoparietal lobes. Although these findings may open a new window on the way of using these tests and studying cerebral mechanism related to learning disabilities, it is noteworthy that the present research is limited to Ardabil city. Moreover, the subjects were male students with the age range of 10-11. So, it is

really difficult to make a generalization out of the results. Hence, it is suggested the research be conducted on different age groups and gender in different regions of Iran.

## Conflict of interest

The authors of this article declare that there was no conflict of interest.

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## References

- Ames, D.R., Rose, P., & Anderson, C.P. (2006). The NPI-16 as a short measure of narcissism. *J Res Pers*, 40: 440-50. doi: 10.1016/j.jrp.2005.03.002
- Ahi, Q., Mohammadifar, M. A., & Besharat, M. A. (2007). Reliability and validity of the Yang Schema Short Form Questionnaire. *Journal of Psychology and Educational Sciences*, 76, 20-5.
- American Psychiatric Association (2013). *DSM-5 Diagnostic and Statistical Manual of Mental Disorders*. Translation: Rezaei, F. (2016). Tehran: Arjmand Publications.
- Baranoff, J., Oeil, & Tian. (2007). Young Schema Questionnaire: Review of Psychometric and Measurement Issues. *Australian Journal of Psychology*, 59(2): 78-86. doi: 10.1080/00049530601148397
- Faccini, L., & Allely, C.S. (2016). Mass violence in individuals with autism spectrum disorder and Narcissistic Personality Disorder: A case analysis of Anders Breivik using the "Path to Intended and Terroristic Violence" model, *Aggression and Violent Behavior*, 31:229-236. doi: 10.1016/j.avb.2016.10.002
- Fang, S., & Chung, M.C. (2019). The Impact of Past Trauma on Psychological Distress among Chinese Students: The Roles of Cognitive Distortion and Alexithymia. *Psychiatry Research*, 271:136-143. doi: 10.1016/j.psychres.2018.11.032
- Freis, S.D. (2017). How a Need for Distinctiveness Characterizes Similarities and Differences among the Narcissistic Subtypes. *Graduate Program in Psychology*. The Ohio State University.
- Gong, J., & Chan, R.C.K. (2018). Early maladaptive schemas as mediators between childhood maltreatment and later psychological distress among Chinese college students. *Psychiatry Research*, 259: 493-500. doi: 10.1016/j.psychres.2017.11.019
- Hart, W., Richardson, K., & Breeden, C.J. (2019). An interactive model of narcissism, self-esteem, and provocation extent on aggression. *Personality and Individual Differences*, 145:112-118 .doi: 10.1016/j.paid.2019.03.032

- Hawke, L. D., & Provencher, M. D. (2012). The Canadian French Young Schema Questionnaire: Confirmatory factor analysis and validation in clinical and nonclinical samples. *Canadian Journal of Behavioral Science*, 44, 40-49. doi: 10.1037/a0026197
- Hoffart, A., Sexton, H., Hedley, L. M., Wang, C. E., Holthe, H., Haugum, J. A. (2005). The structure of maladaptive schemas: a confirmatory factor analysis and a psychometric evaluation of factor-derived scales. *Cognitive Therapy and Research*, 29(6): 627–644. doi: 10.1007/s10608-005-9630-0
- Leggio, J.N. (2018). Mental health outcomes for adult children of narcissistic parents. A Dissertation submitted to the faculty of Adler University for the degree of doctor of psychology. *ProQuest Dissertations Publishing*, 10974938.
- Marcoux, L.A., Michon, P.E., Lemelin, S., Voisin, J.A., Vachon-Preseau, E., & Jackson, P.I. (2014). Feeling but not caring: Empathic alteration in narcissistic men with high psychopathic traits. *Psychiatry Research: Neuroimaging*, 224: 341–348. doi: 10.1016/j.pscychres.2014.10.002
- Marissen, M.A.E., Deen, M.L. & Franken, I.H.A. (2012). Disturbed emotion recognition in patients with narcissistic personality disorder. *Psychiatry Research*, 198(2): 269–273. doi: 10.1016/j.psychres.2011.12.042
- Mohammadzadeh, A. (2009). Validation of the Narcissistic Personality Questionnaire (NPI). *Journal of Mental Health Principles*, 4 (11), 276-281. doi: 10.22038/JFMH.2009.1131
- O'Reilly, IIIa, C.A. & Doerr, B. (2020). Conceit and deceit: Lying, cheating, and stealing among grandiose narcissists. *Personality and Individual Differences*, 154: 109-627. doi: 10.1016/j.paid.2019.109627
- Ronningstam, E. (2013). An update on narcissistic personality disorder. *Current opinion in psychiatry*, 26(1), 102-106. doi: 10.1097/YCO.0b013e328359979c
- Sadoughi, Z., Aguilar Vafae, M., Rasoulzadeh Tabatabai, K., & Isfahanian, N. (2009). Factor analysis of the short version of the Yang Schema Questionnaire. *Journal of Psychiatry and Clinical Psychology*, 14 (2), 214-219.
- Schmidt, N.B., Joiner, T.E., Young, J.E., & Telch, M.J. (1995). The schema questionnaire: investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research*, 19(3): 295–321. doi: 10.1007/BF02230402
- Stopa, L., Thorne, P., Waters, A., & Preston, J. (2001). Are the short and long forms the Young Schema Questionnaire comparable and how well does each version predict psychopathology scores? *Journal of Cognitive Psychotherapy*, 15(3): 253-272. doi: 10.1891/0889-8391.15.3.253
- Starbird, A. D., & Story, P. A. (2020). Consequences of childhood memories: Narcissism, malevolent, and benevolent childhood experiences. *Child Abuse & Neglect*, 108 : 104 - 656. doi: 10.1016/j.chiabu.2020.104656
- Sullivan, L.J. (2016). Relationships between college students with early maladaptive schemas and their instructors. PhD thesis of psychology. Capella University. *ProQuest Dissertations Publishing*, 10241816.
- Torshabi, M. (2016). Develop a model to explain the dimensions of pathological narcissism based on parenting style, attachment styles and maladaptive schemas. PhD thesis. *Tarbiat Modares University*.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). Schema Therapy: A Practitioner's Guide. *American Journal of Psychiatry*, 160(11), 2074-a-2075. doi:10.1176/appi.ajp.160.11.2074-aNY:Guilford Press.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2011). *Schema therapy*. Translation: Hamidpour, H., & Andouz, Z. (2018). Tehran: Arjmand Publications.
- Young, (1998). *The Young Schema Questionnaire: Short Form*, Available at <http://home.sprynet.com/sprynet/schema/ysqs.htm>.
- Young, J. E. (1990). Cognitive therapy for personality disorders: A schema-focused approach. Sarasota, FL: *Professional Resource Press*.
- Zabeti, A.S., & Jafari, S. (2018). Structural pattern of parenting styles, early maladaptive schemas and adolescent narcissism. *Applied psychology*, 12 (2), 302-285.
- Zajenkowski, M., & Fronczyk, K. (2020). How do narcissists perceive personality items? Measurement invariance of a Big Five scale across low and high narcissism groups. *Personality and Individual Differences*, 152: 109-595. doi: 10.1016/j.paid.2019.109595
- Zeigler-Hill, V., Green, B.A., Arnau, R.C., Sisemore, T.B & Myers, E.M. (2011). Trouble ahead, trouble behind: Narcissism and early maladaptive schemas. *Journal of Behavior Therapy and Experimental Psychiatry*, 42(1) 96-103. doi: 10.1016/j.jbtep.2010.07.004
- Weintraub, S., & Mesulam, M.-M. (1983). Developmental learning disabilities of the right hemisphere: Emotional, interpersonal, and cognitive components. *Archives of neurology*, 40(8), 463-468. doi: 10.1001/archneur.1983.04210070003003