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# Prediction of Depression with Emotional Intelligence and Critical Thinking in People with Narcissistic Personality Disorder

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#### **Abstract**

**Background and Objective:** Narcissism is a personality disorder that is conceptualized as the excessive love of self and appears as a great feeling of self, more merit, and superiority. This study aimed to evaluate the prediction of depression with emotional intelligence and critical thinking in people with a narcissistic personality disorder.

**Materials and Methods:** The statistical population in this descriptive-correlational study included all people with narcissistic personality disorder who were referred to Nik Amal Psychiatric Clinic, Tehran, Iran, in 2022. In total, 130 people were selected using the available sampling method. Ames' narcissistic personality questionnaires, Beck Depression Inventory, Schering Emotional Intelligence Test, and California Critical Thinking Skills Test were administered to collect data. Data analysis was performed using correlational and multivariate regression tests in SPSS software (version 23).

**Results:** The results showed that emotional intelligence and critical thinking were negatively and significantly associated with depression (P<0.01). Emotional intelligence (62%) and critical thinking (45%) explained the variance in depression scores of people with a narcissistic personality disorder.

**Conclusions:** To reduce the problem of depression in people with narcissistic personality disorder, it is recommended to increase emotional intelligence and critical thinking.

Keywords: Narcissistic personality disorder, Depression, Critical thinking, Emotional intelligence

## Background

The personality disorder is associated with an almost two-decade decrease in life expectancy, and usually, people who have a personality disorder have a lower life expectancy than others [1]. Narcissism is a personality disorder that is conceptualized as excessive self-love and appears as a great feeling of self-importance, entitlement, and superiority. This great feeling is visible in all aspects of a person's life, such as relationships with relatives, friends, neighbors, colleagues, and spouses [2]. Narcissists see themselves as better-looking, smarter, and better leaders, as well as more creative than others and generally superior to others [3]. In terms of personal and interpersonal success, narcissists see intelligence as a critical factor that mainly affects interpersonal success. A narcissist believes that having higher intelligence will attract people. To be narcissistic, people try to impress the person in question by showing their intelligence in

relation to emotional issues [4]. Emotional intelligence is a person's response to interpersonal or intrapersonal emotional information that includes identifying, interpreting, expressing, and regulating one's own and other emotions [5]. Emotional intelligence refers to people's perception of emotional tendencies and the ability to recognize, manage, use, and understand their own and others' emotions [6].

One of the characteristics of narcissistic people is that they feel that they have high critical thinking ability. Critical thinking is a way to think correctly that develops the ability to solve problems, self-management, and decision-making [7]. While a narcissist's primary goal is to maintain self-esteem, grand narcissists achieve this goal through self-aggrandizement and praise-seeking, and when they fail to achieve that, they humiliate others to protect their ego [8].

A study showed that people with the narcissistic disorder experience low emotional intelligence [4]. In another study, there was a negative and significant relationship between emotional intelligence and depression [9]. The results of another study revealed that critical thinking skills are weak in people with a narcissistic disorder [10], and a study found a negative and significant relationship between critical thinking and depression [11]. Alsawalka, in his study, showed that women with pleasure disorders experience low emotional intelligence [4]. Fang et al. in their study, indicated a narcissistic relationship between personality disorder and depression [12].

New treatment protocols for narcissistic people should be done because currently, the treatment process for these clients is not successful, and the need for new treatment solutions, as well as newer and more extensive protocols is felt. According to the literature and studies conducted in this field, it can be concluded that the relationship between emotional intelligence and critical thinking has not been established with depression in people with a narcissistic disorder. Accordingly, this study aimed to fill this gap and attempted to investigate the prediction of depression with emotional intelligence and critical thinking in people with a narcissistic personality disorder.

## **Objectives**

This study aimed to evaluate the prediction of depression with emotional intelligence and critical thinking in people with a narcissistic personality disorder.

#### Materials and Methods

This correlational study was conducted based on an applied research method. The obtained data were analyzed using correlational tests and regression analysis in SPSS software (version 23). A P-value less than 0.05 was considered statistically significant. The statistical population of the current study was all people with a narcissistic disorder who were referred to Nik Amal Psychotherapy Clinic, Tehran, Iran, in 2021. In total, 130 people were selected as a sample using the available sampling method. Tebachnik and Fidel's formula (N>50+8m) was used to estimate the statistical sample size of the present study.

It is common to use this formula in multiple regression analysis methods to determine the number of participants needed to conduct scientific research. Accordingly, there should be at least eight participants for each predictor variable plus 50. Since the California Critical Thinking Skill Test used in this research has five subscales of interpretive

skill, inferential skill, evaluation skill, analogical reasoning, and inductive reasoning, and the emotional intelligence test used in this research has five subscales, namely self-awareness, self-regulation, self-motivation, empathy, and social skills, at the level of predictive variables, there are 10 subscales, and our required society equals (10\*8)+50 that means 130 people who have scored 8 or higher in the Ames' personality test and have been identified as narcissistic samples.

To reach this level, the Ames' personality questionnaire was administered to a total of 453 clients at the Nik Amal Psychotherapy Clinic, Tehran, Iran, in 2021, until 130 people were selected. The inclusion criteria were the minimum education level of a diploma, diagnosis of narcissistic personality disorder, and lack of any psychiatric disorders or substance abuse. On the other hand, those who were unwilling to cooperate in the research and did not complete the questionnaires were excluded from the study. Regarding ethical considerations, an informed consent form was initially obtained from the participants. They were then assured that the principle of confidentiality would be observed, their psychological health would be prioritized, and they could leave the research procedure at any stage of the response.

# Research instruments Narcissistic Personality Inventory (NPI):

The original version of the Ames Narcissistic Personality Inventory was developed in 1988. This questionnaire has 16 pairs of "Yes" and "No" statements. This tool has no subscale and is a single factor. Its response range is such that it consists of a pair of items that the respondent must choose from them. This score ranges from 0 to 16. A higher score indicates a higher level of narcissism and vice versa. As a cut-off point, a score of 8 or higher indicates a narcissistic personality Mohammadzadeh evaluated this questionnaire on 342 students in a cross-sectional contextualization study in 2008. The correlation coefficient between the scores of the 16-item NPI and the narcissism scale of Milon's Clinical Multiaxial Personality Questionnaire was obtained at 0.77 which was significant [14].

# Beck Depression Inventory Short Form (BDI):

The Beck Depression Inventory was first developed in 1961 by Beck, Steer, and Carbin [15]. In the revised form, four items were changed to reflect symptoms associated with more severe depression. Moreover, to show the decrease in appetite and sleep, two of its articles were revised. According to

the selected answers, answers number zero, one, two, and three received 0, 1, 2, and 3 scores, respectively. In Iran, the reliability of this scale was assessed using Cronbach's alpha and determined at 0.80. Moreover, the content and face validity of this questionnaire was also confirmed [16].

# Emotional intelligence questionnaire (EIT):

This test was designed by Schering in 1996. It is one of the used tools that is set in the form of a five-point Likert scale. The main form of this exam has 70 questions and consists of two parts, the first part of which has 40 questions, and the second part has 30 questions. The components of emotional intelligence are self-awareness (8 questions), self-regulation (7 questions), spontaneity (7 questions), empathy (6 questions), and social skills (5 questions). Each subject receives six separate scores, five of which are related to each of the components and one score as a whole. The number of questions related to each dimension of emotional intelligence is given in Tables 2 and 3. In a study, the reliability rate according to Cronbach's alpha was 90%. Its content validity was also reported as favorable [17].

# California Critical Thinking Skills Test (Form B) (CCTST)1:

In 1990, Peter Fashion and Noreen Fashion prepared the California Critical Thinking Skills Test in two parallel forms (A) and (B) to measure the critical thinking of adults. Form (B) of this test contains 34 multiple-choice questions. One mark for each correct answer and a total of 34 marks can be obtained from this test. The higher the test score, the higher a person's critical thinking ability. In the original version, the reliability of this test, which was evaluated using the Cord Richardson-20 formula, was reported between 0.78 and 80. Its validity was also confirmed [7]. Davoodi and Naqshpour reported the reliability of the CCTST as 0.62 by Cronbach's alpha method. The result of the

factor analysis in determining the construct validity of the test indicated that the test consists of five factors (analysis, inference, evaluation, inductive reasoning, and comparative reasoning), and all five factors had a positive and high correlation with the total score of the test [18].

#### Results

In total, 130 people with narcissistic disorder referred to Nik Amal Psychotherapy Clinic, Tehran, Iran, in 2021, participated in this study. Out of these, 78 (59%) cases were women, and the age range of the subjects was 20-50 years. Descriptive information related to the research variables is presented in Table 1.

Table 1. Mean and standard deviation of research variables

Variable	SD±Mean
Depression	4.16±7.78
Self-awareness	4.25±26.20
Self-regulatory	$3.76\pm22.43$
Spontaneity	$4.81\pm23.49$
Sympathy	3.35±20.78
Social skills	2.72±15.99
Interpretive skills	1.68±5.46
Deductive skill	1.75±5.70
Evaluation skills	1.66±4.65
Deductive reasoning	1.67±5.91
Inductive reasoning	1.11±4.74

As can be seen in Table 1, the mean values of obsession severity, maternal anxiety, and child separation anxiety disorder were 20.57, 33.42, and 68.45, respectively. Table 2 tabulates the correlation matrix of research variables.

According to the above table, depression shows negative and significant relationships with self-awareness (R=0.653), self-regulation (R=0.599), spontaneity (R=0.705), empathy (R=0.577), social skills (R=0.410), interpretation skill (R=0.331), inferential skill (R=0.415), evaluation skill (R=0.272), analogical reasoning (R=0.178), and inductive reasoning (R=0.382).

**Table 2.** Correlation among research variables

Variable	1	2	3	4	5	6	7	8	9	10	11
Self-awareness	1										
Self-regulatory	0.423	1									
Spontaneity	0.378	0.535	1								
Sympathy	0.621	0.452	0.338	1							
Social skills	0.566	0.428	0.287	0.612	1						
Interpretive skills	0.241	0.329	0.350	0.292	0.413	1					
Deductive skill	0.214	0.115	0.241	0.250	0.198	0.201	1				
Evaluation skills	0.134	0.254	0.301	0.223	0.337	0.165	0.214	1			
Deductive reasoning	0.208	0.331	0.218	0.286	0.197	0.312	0.210	0.212	1		
Inductive reasoning	0.318	0.251	0.239	0.177	0.205	0.314	0.255	0.267	0.240	1	
Depression	-0.653	-0.599	-0.705	-0.577	-0.410	-0.331	-0.415	-0.272	-0.378	-0.382	1

**Table 3.** Regression test results to predict depression with emotional intelligence and its components

Criterion variable: Depression								
Predictor variable	R	$R^2$	F	Р	β	Т	Р	
Emotional intelligence	0.788	0.662	40.733	0.001	-0.132	1.513	0.001	
Self-awareness	0.621	0.419	37.208	0.001	-0.189	1.716	0.008	
Self-regulation	0.547	0.317	31.369	0.001	-0.165	2.165	0.032	
Spontaneity	0.518	0.304	28.665	0.001	-0343	3.957	0.001	
Empathy	0.488	0.218	21.540	0.001	-0220	3.267	0.001	
Social skills	0.612	0.431	51.381	0.001	165	2.758	0.007	

According to Table 3, the R-value of emotional intelligence is 0.788, and the R2-value is obtained at 0.622. In other words, emotional intelligence includes a total of 62% of the variance of depression scores. In addition, the self-awareness component can predict depression in a negative and significant way (P=0.008,  $\beta$ =0.189). The self-regulation component can predict depression negatively and significantly (P=0.032,  $\beta$ =0.165). The

spontaneity component is also able to predict depression negatively and significantly (p=0.001,  $\beta$ =0.343). Moreover, empathy (P=0.001,  $\beta$ =0.220) and social skills can negatively and significantly predict depression (P=0.007,  $\beta$ =0.165).

According to table 4, as can be seen, the amount of R of critical thinking is equal to 0.518, and the amount of R2 equals 0.451. In other words, critical thinking includes 45% of the variance of depression scores.

Table 4. Regression test results to predict depression with critical thinking and its components

Criterion variable: Depression								
Predictor variable	R	$\mathbb{R}^2$	F	Р	β	T	Р	
Critical thinking	0.671	0.451	9.108	0.001	-0.134	1.319	0.002	
Interpretation skill	0.475	0.225	11.924	0.001	-0.199	1.985	0.007	
Inferential skill	0.368	0.135	13.481	0.001	-0.291	2.575	0.011	
Evaluation skill	0.429	0.198	10.532	0.001	-0.190	2.005	0.031	
Deductive reasoning	0.451	0.202	17.102	0.001	-0.307	2.761	0.007	
Inductive reasoning	0.566	0.320	28.169	0.001	-0.278	3.017	0.003	

# Discussion

The present study was conducted to predict depression with emotional intelligence and critical thinking in people with a narcissistic personality disorder. The results of this research showed that the components of emotional intelligence have a negative and significant relationship depression. Emotional intelligence components include 62% of the variance of depression scores. This finding was consistent with the results of other studies. In a study, it was shown that people with happiness disorder have low emotional intelligence [4]. The findings of another study revealed a negative and significant relationship between emotional intelligence and depression [9]. In explaining this result, it can be said that narcissistic people with high emotional intelligence should be able to disclose their emotional experiences because the written disclosure of emotions and feelings leads to a deep understanding of themselves and life events and makes them think about themselves, thereby leading to looking at issues from a wider perspective. With the available evidence, people who can skillfully disclose their emotions have more empathy and less depression than those who lack this ability. The better people analyze, describe, classify, and explain their experiences and have a clearer awareness of the factors, processes, and consequences of their thoughts, emotions, and

actions, the more mental health they have and the less depression they have in life, and they are more successful in life [19].

Regarding the relationship and negative prediction of emotional skills with self-awareness, it should be emotional self-awareness that includes strategies. These strategies include positive reappraisal, positive revision, reaching a perspective, acceptance, and planning. Paying attention to the cognitive ways of dealing with emotions when faced with negative life events in this period can be important because there is a strong relationship between internal problems and the process of negative thinking or cognitive distortions of people. Basically, in emotional skills, an optimal interaction of cognition and emotion is needed to deal with negative situations since humans interpret everything they encounter, and cognitive interpretations determine people's reactions. Modern approaches also attribute the cause of emotional disorders to the violations of cognitive

In explaining the relationship between empathy and depression, it should be said that to overcome the hardships of life that we have to face due to our social nature, we need social support, and one of the most important of these supports is empathy. When you have a problem (sadness), your friend listens carefully to your words and conveys to you

the feeling that s/he understands you (loves you). One of the basic factors in achieving empathy is the mastery of emotions and feelings. To establish empathic relationships, we must know our feelings, take control of them, and not let our distress impair our thinking. People who have achieved self-control know the feelings of others better [9].

To explain the relationship between social skills and depression, it can be said that social skills enable a person to accept the responsibilities of his social role and effectively deal with demands, expectations, and daily problems, especially in interpersonal relationships, without harming himself or others. Social skills include a large group of social and interpersonal psychological skills that can help a person in making personal decisions, effective conversations, and the development of modeling and self-management skills that may help them lead to a healthy life [20].

Another finding of this research showed that critical thinking has a negative and significant relationship with depression. Additionally, critical thinking components include a total of 26% of the variance of depression scores. The results of this study were consistent with the findings of other studies. A study showed that critical thinking skills are weak in people with a narcissistic disorder [10]. Similarly, a negative and significant relationship was found between critical thinking and depression [21]. In the explanation of this finding, it can be said that with the increase in inferential skill, the level of depression also decreases. Inferential skill means a person tends to judge and evaluate people and things. A person with this inferential skill enjoys doing things that require analysis, evaluation, and comparison. S/he prefers assignments or problems in which s/he can evaluate the plan or method used by other people [22].

In explaining the relationship between evaluation skills and depression, it should also be said that in evaluation, when a person starts a task, s/he likes to make a list of things to do and arrange them according to importance. When there are many things to do, s/he is well aware of the order in which they should be done [11]. Critical thinking or higher level thinking means thinking beyond memorizing facts or telling someone exactly as you were told and takes thinking to a level beyond simply reciting facts. Therefore, critical thinking should not become thinking with arguments. Critical thinking allows a person to face his issues and problems better and more efficiently. It should be kept in mind that critical

thinking is more than logical and analytical thinking].

Among the limitations of this study, it can be mentioned that the statistical population is limited to only one province. Moreover, social and economic factors and variables, such as mental state, income, and culture level, were not available to the researcher; accordingly, the relationship among the variables may be affected. The major limitation of the correlational method is that it does not determine the cause-and-effect relationship between variables, which means that the relationship between two variables is caused by countless variables that cannot be adjusted and controlled.

#### **Conclusions**

According to the results of the present research, the following suggestions can be made: critical thinking training through the practice of distinguishing reality from suspicion distinguishing definitive from indeterminate conclusions can lead to a change in people's attitude towards their surroundings and increase people's level of satisfaction. Therefore, it is suggested that narcissistic people participate in educational and therapeutic workshops with increasing emotional intelligence, self-discipline, and regulation strategies. In this regard, conducting longitudinal studies can be helpful. It is suggested to investigate the relationship of variables, such as family process and content, social dependence, identity crisis, impairment, and social anxiety with depression and life satisfaction. In future research, it is to use native and standardized questionnaires made by Iranian researchers that are suitable for our culture. This research can be conducted in other cities and statistical communities.

### **Compliance with ethical guidelines**

All ethical principles were considered in this research. The participants were informed about the purpose and procedures of the research, and informed consent was obtained from the subjects. They were also assured of the confidentiality of their information. In addition, this study was approved by the Ethics Committee of Payame Noor University, Kerman Branch, Kerman, Iran (23/034/3245).

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#### **Authors' contributions**

All authors participated in drafting of the article and approved the final version.

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#### Conflicts of Interest

The authors declare that they have no conflict of interest.

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