



# Self-esteem and optimism in patients with major depression disorder: a cross-sectional study

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**Background:** Depressive disorders are common mental illnesses characterized by persistent feelings of sadness, hopelessness, and loss of interest in activities. Self-esteem refers to the appraisal of one's worth and personality, whereas optimism reflects a positive attitude and the expectation of positive outcomes. Therefore, the present study aims to determine the average self-esteem and optimism of patients with depression in 2022.

**Methods:** The present study is a single center and prospective descriptive-analytical study in which 121 patients out of 154 participants with major depression using convenience sampling were studied. Recruitment started on 10 June 2022 and ended on 12 July 2022. Data were collected using a demographic questionnaire, the Rosenberg Self-Esteem Scale (RSES), and the Revised Life Orientation Test (LOT -R). Data analysis was performed using statistical tests and the Pearson correlation coefficient with SPSS software version 21.

**Results:** The mean and SD of patients' self-esteem scores were  $14.68 \pm 1.30$ , and the mean and SD for optimism scores were  $9.90 \pm 1.68$ . Pearson correlation analysis showed that educational level had a significant inverse relationship with patients' self-esteem scores ( $r = -0.009$ ,  $P = 0.03$ ), and sex had a significant relationship with patients' optimism scores ( $r = 0.175$ ,  $P = 0.008$ ).

**Conclusion:** Considering the importance of self-esteem and optimism in the recovery and return to society of patients with major depression, it is necessary to take measures to strengthen and increase self-esteem and optimism in these patients.

**Keywords:** cross-sectional, major depressive disorder, optimism, self-esteem

## Introduction

Major depressive disorder (MDD) is a prevalent mental illness that affects millions of people worldwide<sup>[1]</sup>. It is characterized by persistent feelings of sadness, loss of interest, and impaired cognitive function<sup>[2]</sup>. According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [2 Diagnostic and Statistical Manual of Mental Disorder (DSM-5)], major depression is a clinical course characterized by one or more episodes of major depression without a history of manic, mixed, or hypomanic episodes<sup>[3]</sup>. In DSM-5, in contrast to DSM-IV, the chapter on depressive disorders is placed in its category because of its importance. It is estimated that 15% of depressed

## HIGHLIGHTS

- Major depressive disorder is a common psychological condition.
- Self-esteem is one of the concepts that is severely distorted in patients with depression.
- Optimism has been found to have a protective effect on mental health.

patients eventually commit suicide globally<sup>[4]</sup>. A depressive episode lasts about 10 months without treatment and about 3 months with treatment<sup>[5,6]</sup>. The prevalence of major depression in different parts of the world is estimated to be 4.7% on average<sup>[7]</sup>. In Iran, the incidence of major depression has increased significantly, and the prevalence of very severe and severe depression levels is estimated at 5 and 19%, respectively<sup>[8]</sup>.

While there are various factors contributing to MDD, self-esteem and optimism are significant psychological constructs that play a crucial role in the management and treatment of depression<sup>[9–11]</sup>.

Depressed people with inadequate self-esteem sort and discard their positive aspects while reinforcing their negative aspects<sup>[12]</sup>. Self-esteem refers to an individual's overall evaluation of their worth and personal value. Low self-esteem is often associated with developing and maintaining<sup>[13]</sup>.

Self-esteem is a predictive factor for the occurrence of depression<sup>[14]</sup>. Depressive disorder is one of the most important mental illnesses that reduce self-esteem and cause negative changes due to its debilitating nature, changes in the attitude of

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others (especially the family) towards the person, and also the label of a mentally ill person that causes him to be rejected by his relatives<sup>[15]</sup>.

Optimism is a psychological construct characterized by a positive outlook and expectation for favorable outcomes. Optimism has been found to have a protective effect on mental health, including reducing the risk of depression<sup>[16]</sup>.

Optimists believe that instead of bad things, good things will happen<sup>[17]</sup>. A pessimist believes that failures and setbacks are unchangeable and affect many aspects of his life<sup>[18]</sup>. Pessimism in depressed people is one of the most important factors for lower treatment adherence. Failure of pessimistic depressed patients to participate in treatment exacerbates their medical problems, jeopardizes their health, and ultimately leads to their premature death<sup>[19]</sup>. Considering the high prevalence of depression and the significant burden this disease places on individuals, the health-care system, and society, it is necessary to conduct comprehensive studies to develop appropriate methods for the prevention, treatment, and management of this disease<sup>[20]</sup>. Considering that the treatment and control of major depression improves the quality of life, enables the return to society, and promotes patient communication, we decided to conduct a study to determine the average self-esteem and optimism of patients suffering from depression in 2022.

## Methods

### Study design and setting

This single center and prospective descriptive correlational study was conducted on patients with major depression in 2022. Our work has been reported in line with the strengthening the reporting of cohort, cross-sectional and case-control studies in surgery (STROCSS) criteria<sup>[21]</sup>.

### Participants and sample size

In the present study, considering the CI of 95% and the power of 80%, and based on the correlation coefficient of  $r=0.176$  between self-esteem and optimism in the study by Moloud *et al.*<sup>[2]</sup> and the formula of ' $N = [(Z\alpha + Z\beta)/C]^2 + 3$ ', the final sample size was calculated to be 120. Sampling was conducted in morning shifts (from 8 a.m. to 2 p.m.) on working days so that it lasted for 32 days. Recruitment started on 10 June 2022 and ended on 12 July 2022. A number of 154 patients with MDD were evaluated by the researchers, out of which 121 met the inclusion criteria.

### Inclusion and exclusion criteria

Inclusion criteria consisted of the following: granting consent to participate in the study, diagnosis of MDD based on the DSM-5 diagnostic criteria and a diagnostic clinical interview, and having at least primary education. Exclusion criteria consisted of an incomplete questionnaire and an unwillingness to continue participation in the study.

### Measurements

Data were collected using a demographic questionnaire, the Rosenberg Self-Esteem Scale (RSES), and the Revised Life Orientation Test (LOT-R).

### Demographic questionnaire

The demographic questionnaire included age, sex, marital status, level of education, occupation, history of physical illness, drug history, duration of present illness, and number of hospitalizations.

### The Rosenberg self-esteem scale (RSES)

The RSES is a reliable and valid self-report scale for measuring the level of self-esteem, which was first developed by Rosenberg in 1965. This scale is one of the most widely used tools to assess self-esteem and contains 10 statements all of which are scored on a 4-point Likert scale. It should be stated that items 1 to 5 are scored positively (Strongly Agree = 3 to Strongly Disagree = 0) and items 6 to 10 are scored reversely (Strongly Agree = 0 to Strongly Disagree = 3). The overall score of on the scale ranges from 0 to 30 so a higher score indicates a higher level of self-esteem<sup>[22]</sup>. In psychometrics of this scale, Rosenberg (2015) reported the correlation coefficient between the individual and the collective self-esteem to be  $r=0.34$ . He also reported Cronbach's alpha and test-retest reliability to be  $\alpha=0.93$  and  $r=0.85$ , respectively<sup>[23]</sup>.

### The revised life orientation test (LOT-R)

The LOT-R is a 10-item standard instrument for assessing one's level of optimism. All items of this instrument are scored on a 5-point Likert scale from strongly agree = 0 to strongly disagree = 4. On this scale, items 1, 4, and 10 are scored positively, while items 3, 7, and 9 are scored reversely in valence. The overall score of this instrument ranges between 0 and 24 so a lower score indicates a lower level of optimism. Based upon the confirmatory factor analysis of LOT-R, the correlation coefficient between factor loadings was reported to be 0.59–0.80. Moreover, Cronbach's alpha for Lot-R was obtained to be  $\alpha=0.71$ <sup>[24]</sup>.

### Ethical considerations

The researcher introduced himself to the participants and explained the study methodology and objectives. Then, the participants signed written informed consent. They were also assured of the confidentiality of personal information and the anonymity of the questionnaires.

### Data collection procedure

After obtaining approval from the Ethics Committee, the researcher referred to the hospital, and obtained permission from the hospitals' officials to collect data. Eligible patients were then recruited based on the inclusion criteria. Patients were selected using convenience sampling to complete the final sample size (121 patients) was completed. Next, the questionnaires were given to the participants and collected after filling them in. Sampling was conducted until the target sample size ( $n=121$ ) was reached.

### Data analysis

Data were analyzed using descriptive (frequency, percentage, mean, and SD) and inferential (Pearson correlation coefficient) statistics. All data were entered into SPSS Statistics for Windows, version 21.0 (IBM Corp.). The significance level was set at  $P < 0.05$ .

**Results**

**Demographic information**

According to Table 1, 121 patients with major depression participated in the study, of whom 28.9% were men and 71.1% were women. The mean age of participants was  $42.21 \pm 10.19$  years. In addition, 84.3% did not have a specific physical disease. In addition, almost 90.1% of patients were unemployed, while the percentage of employed patients was 9.9%. 81% of patients had a high school education. 56.1% of patients were married and only 37.1% were single. The average duration of diagnosis was  $5.56 \pm 3.87$  and the average number of hospitalizations was  $2.20 \pm 1.79$ .

**Self-esteem and optimism**

According to Table 2, the average and SD of the patients' self-esteem were  $14.68 \pm 1.30$  for optimism, the mean and SD were  $9.90 \pm 1.68$ .

**Correlation**

Based on Pearson correlation analysis, educational level had a significant inverse relationship with self-esteem score in patients ( $r = -0.009, P = 0.03$ ) and female had a positive association with optimism score in patients ( $r = 0.175, P = 0.007$ ). Moreover, there was no significant relationship between patients' self-esteem and optimism with other demographical variables (Table 3).

**Discussion**

This study aimed to determine the average self-esteem and optimism of patients suffering from depression in 2022.

According to many theorists, self-esteem begins to grow and develop at an early age, and its immediate and short-term change is almost impossible; because self-esteem is significant in the process of 'attitudinal performance' in the sense that the

**Table 1**  
**Demographic characteristics of the participants in the study.**

Variable	Frequency (n)	Percent (%)
Sex		
Male	35	28.9
Female	86	71.1
Education level		
Secondary	23	19
High school	98	81
Marital status		
Single	45	37.1
Married	68	56.1
Widow	8	6.8
Occupational		
Employed	12	9.9
Unemployed	109	90.1
History of previous illness		
Yes	19	15.7
No	102	84.3
	Mean	SD
Age	42.21	10.19
Duration of diagnosis	5.56	3.87
Frequency of hospitalizations	2.20	1.79

**Table 2**  
**Means and SD on the self-esteem and optimism of the participants in the study.**

Variables	Mean	SD
Self-esteem	14.68	1.30
Optimism	9.90	1.68

strengthening of self-esteem shows its effect when it is checked and strengthened in the natural process of life and various situations. A group of researchers such as Young and Mroczek (1997) and Chubb and colleagues (2003) believe that self-esteem and its level do not change at any stage of human development and therefore some people may not experience much progress in their self-esteem forever and for a long time<sup>[25,26]</sup>. Self-esteem is composed of two interrelated parts: (a) the feeling of confidence in dealing with life's challenges (belief in self-efficacy) and (b): the feeling of competence to be happy (self-esteem or self-respect). In other words, confidence in one's worth, and feeling good about oneself, can effectively influence one's mental health and behavior. According to the research findings of Kehrazai (2016), self-esteem is one of the most important determinants in the formation of emotional behavior patterns, and on the other hand, it also affects performance and learning. Moreover, the association between low self-esteem and academic failure, depression, and delinquency indicates the need for psychological interventions to improve self-esteem<sup>[27]</sup>. Khanjani<sup>[28]</sup> showed the effectiveness of positive psychotherapy on students' life satisfaction, optimism, and positive emotions in his study, which can be used to improve students' mental health and is consistent with the present study.

Studies have suggested that there may be a correlation between sex and optimism, although the findings are not consistent across all studies.

Some studies have found that women tend to report higher levels of optimism compared to men. For example, a study found that women showed higher levels of positive thinking and optimism compared to men<sup>[29]</sup>. Another study also found that women tended to report higher levels of optimism than men<sup>[30]</sup>.

However, it is important to note that not all studies have found this sex difference. Some studies have found no significant differences in optimism between men and women.

There could be various reasons for these mixed findings. One possible explanation is that cultural and societal factors may influence the expression and reporting of optimism differently in men and women. Additionally, individual differences, such as personality traits, life experiences, and social support, may also play a role in shaping levels of optimism within each sex<sup>[31,32]</sup>.

The study's findings demonstrate the potential benefits of fostering optimism in patients with depression. Optimistic individuals may exhibit enhanced coping strategies, positive expectations, and an ability to reframe negative experiences, leading to better overall well-being and improved treatment outcomes. By fostering optimism, healthcare professionals can help individuals with MDD challenge negative thought patterns and develop a more positive outlook, promoting resilience and recovery<sup>[17]</sup>.

Low self-esteem can contribute to decreased optimism, creating a negative cycle reinforcing depressive symptoms. Conversely, limited optimism can perpetuate negative views of oneself, contributing to low self-esteem<sup>[19]</sup>. Recognizing this relationship highlights the importance of simultaneously addressing both self-esteem and optimism in MDD treatment. Interventions that

**Table 3**  
Demographic characteristics and their correlation with patient self-esteem and optimism.

Variables	Correlation with self-esteem score Result ( <i>P</i> , <i>r</i> )	Correlation with optimism score Result ( <i>P</i> , <i>r</i> )
Sex		
Male	0.638*, -0.075	0.032*, 0.175
Female	0.288*, 0.455	0.007*, 0.135
Marital status		
Single	0.188*, -0.094	0.068*, 0.004
Married	0.538*, 0.074	0.624*, 0.1454
Education level	0.030*, -0.009	0.450*, -0.109
Occupational	0.101*, -0.238	0.341*, -0.208
History of previous illness	0.756*, 0.022	0.066*, -0.452
Age	0.380*, 0.063	0.070*, 0.023
Duration of Diagnosis	0.250*, -0.083	0.200*, 0.003
Frequency of hospitalizations	0.340*, 0.033	0.080*, -0.003

\*Pearson correlation.

target both constructs can disrupt the negative cycle and promote positive change, leading to improved psychological well-being<sup>[15]</sup>.

It is important to acknowledge the limitations of the study and consider future research directions. This study employed a cross-sectional design, which limited the ability to determine causal relationships between self-esteem and optimism. Longitudinal studies are needed to investigate the temporal associations and potential mediating and moderating factors. Additionally, future research should explore the effectiveness of interventions targeting self-esteem and optimism in MDD treatment and investigate individual differences that may influence the relationship between these factors.

## Conclusion

In conclusion, self-esteem and optimism play crucial roles in patients with MDD. Recognizing and addressing these psychological factors are critical components of comprehensive depression treatment. Low self-esteem and limited optimism contribute to the maintenance and severity of depressive symptoms, while fostering self-esteem and optimism can enhance coping mechanisms and promote resilience. By integrating interventions that target self-esteem and optimism alongside traditional treatments, healthcare professionals can optimize outcomes and improve the overall well-being of individuals with MDD. Future research should continue to explore these constructs and their implications for intervention strategies, fostering a deeper understanding of how self-esteem and optimism impact the management of depression.

## Ethical approval

Ethical approval for this study (Ethical Committee IR.UMSU.REC.1397.116) was provided by the Ethical Committee of Urmia University of medical sciences, Iran on 10 November 2021.

## Consent

Written informed consent was obtained from the patient for publication of this study. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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## Author contribution

S.Y., R.A., and M.D.: study concept, data collection, writing the paper, and making the revision of the manuscript following the reviewer's instructions; N.F., A.B., and R.G.: study concept, reviewing, and validating the manuscript's credibility.

## Conflicts of interest disclosure

The authors declare that they have no financial conflict of interest with regard to the content of this report.

## Research registration unique identifying number (UIN)

1. Name of the registry: Iranian Registry of Clinical Trials.
2. Unique identifying number or registration ID: IRCT20140212016564N15.
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## Guarantor

Rasoul Goli.

## Provenance and peer review

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## Data availability statement

The datasets generated during and/or analyzed during the current study are available upon reasonable request.

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