

## Determining the Relationship between the Level of Self-efficacy and Quality of Life on Coping with Depression

### Abstract

**Background:** Individuals' high self-efficacy has a positive effect on coping diagnosed with depression. This positive effect also contributes to the improvement of the quality of life.

**Aim:** The aim of this study was to reveal the relationship between self-efficacy in coping with depression and quality of life.

**Methods:** The study used a descriptive design. The sample of the study consisted of 78 patients followed up with a diagnosis of depression in the psychiatry department of a hospital. Data were collected through face-to-face interviews. Questionnaire form, depression coping self-efficacy scale (DCSES), and SF-12 quality of life scale were used. Data were evaluated with descriptive statistics, comparison statistics, and correlation analysis.

**Results:** It was determined that the patients diagnosed with depression had moderate self-efficacy perceptions. When the scores of the patients from the scales were examined, the mean score for the physical health summary score component of the SF-12 quality of life scale was  $43.36 \pm 6.5$  and the mean score for the mental health summary score component was  $44.92 \pm 8.2$ . In the correlation analysis, a very high, positive, and significant relationship was found between DCSES and SF-12.

**Conclusion:** This study revealed the necessity of self-efficacy in improving the quality of life of patients diagnosed with depression. Improving self-efficacy and quality of life as a part of nursing interventions can contribute to the resolution of mental problems.

**Keywords:** Coping, depression, quality of life, self-efficacy

Aynur Bahar 

Faculty of Health Sciences, Department of Psychiatric Nursing, Gaziantep University Gaziantep, Türkiye

### Introduction

Depression is one of the common psychiatric problems that affect the individual negatively and is characterized by loss of productivity, decrease in social and occupational functionality, economic difficulties, problems in interpersonal relationships, family and marriage, and even death.<sup>1</sup> Affecting more than 300 million people worldwide, depression is one of the main causes of disability.<sup>2</sup>

There are some factors, such as the use of positive coping, high self-efficacy level, effective use of social supports, effective use of depressive drugs, compliance to treatment, and severity of depression, that play a role in reducing or maintaining depressive symptoms.<sup>3</sup> The concept of self-efficacy, which is one of these coping factors, was first proposed by Bandura (1977) within the scope of "Cognitive Behavior Change" with the social learning theory.<sup>4</sup> According to this theory, self-efficacy is one of the important variables in the formation and chronicity of depression.<sup>5</sup>

Self-efficacy is an individual's ability to perform and achieve a certain task/job. Individuals with a high sense of efficacy tend to be more persistent and consistent in dealing with difficulties, use positive coping strategies, set goals, and have high expectations of success. On the contrary, it is stated that patients with low self-efficacy levels tend to give up quickly when faced with a challenge, experience anxiety and fear, and show more depressive symptoms.<sup>6,7</sup>

Individuals' self-confidence in their ability to exhibit a specific behavior in coping with a negative situation such as depression has a positive effect, and therefore it has been reported to be effective on prognosis and treatment.<sup>3</sup> In a study, it was found that

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Corresponding author: Aynur Bahar  
E-mail: abahar@gantep.edu.tr

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self-efficacy is associated with promoting health and maintaining health behaviors in patients diagnosed with depression.<sup>8</sup>

Depression is seen as a barrier to the use of adaptive coping behaviors. Individuals who feel depressed, powerless, and helpless are less likely to develop new behaviors and see themselves as successful in their abilities.<sup>9</sup> Depression symptoms and psychosocial experiences associated with depression have a significant impact on the treatment and coping of depression.

Quality of life is individuals' perception of their own physical and mental health, social and environmental relationships, and their position in life.<sup>10</sup> Quality of life is defined as perceived health with a shorter definition. Major depression is a common disorder in psychiatry, which is accepted as one of the causes of disability and has an impact on quality of life.<sup>11,12</sup> In Türkiye, the lack of comprehensive studies on how depression affects patients' daily life and perception of health attracts attention.

It is thought that it is important to take measures to increase the quality of life and to support mental health in Türkiye where life expectancy is getting longer. In addition, although increasing self-efficacy and quality of life is an important part of nursing interventions, it is thought that the current study is important because there is no study on psychiatric nursing that examines self-efficacy and quality of life together in patients receiving depression treatment. Considering that self-efficacy in coping with depression may be effective on quality of life, this study aimed to determine the relationship between self-efficacy level and quality of life in coping with depression.

#### Questions of Research

Does the level of self-efficacy in coping with depression have an effect on the quality of life in patients diagnosed with depression?

#### Materials and Methods

The study used a descriptive design. This study was conducted with depressed patients who applied to the psychiatry outpatient clinic of a hospital in Gaziantep. The patients diagnosed with depression in the sample group were directed to the researcher (A.B.) by the polyclinic physician.

#### Sample of Study

The population of the study consisted of depression patients who applied to the outpatient psychiatry clinic of a hospital between July 20, 2021 and October 20, 2021.

G power program was used to calculate the sample size of the study. The previous studies were examined,<sup>13</sup> while the confidence interval was  $\alpha=0.05$ , the power of the test was  $(1-\beta) 0.95$ , the effect size  $d_z=0.5526932$ , a total of 45 patients were calculated. The study was completed with 78 patients who met the criteria. The inclusion criteria of the study were to be diagnosed with depression, to be 18 years of age or older, to be literate, to speak Turkish, and to be able to give informed consent. Patients with mental retardation, hearing or speech impairment, illiterate, diagnosed with dementia and other cognitive disorders according to DSM V, and depression with psychotic features were excluded from the study.

#### Data Collection Tools

Data collection tools included a personal information form, depression coping self-efficacy scale (DCSES) and SF-12 quality of life scale.

#### Personal Information Form

This form consisted of 10 questions that include sociodemographic and disease-related information (age, gender, educational level, marital status, income level, the status of employment, receiving inpatient treatment for a mental illness, substance use, suicide attempt, and history of mental illness in the family).

#### Depression Coping Self-Efficacy Scale (DCSES)

It is a self-assessment scale developed by Perraud to measure self-efficacy beliefs necessary to cope with depression symptoms.<sup>3,9</sup> The Turkish adaptation study by Albal et al., it was confirmed to be reliable and valid.<sup>14</sup>

The scale has been used to analyze the outcomes of care after treatment practices to motivate depressed individuals and develop coping skills. It is a proportional scale consisting of 24 items and is administered through a scoring scale between 0 and 100 divided into ten parts. A high value indicates high self-efficacy.<sup>3</sup> In the study of the Turkish version of the scale, the Cronbach alpha value was found to be 0.94.<sup>14</sup> In this study, the Cronbach alpha value was 0.79.

#### SF-12 Quality of Life Scale

The SF-12 is a scale that evaluates the quality of life for the last 4 weeks without focusing on a specific age and disease group. SF-12, which was created by taking twelve items from the sub-categories of SF-36, consists of two components: Physical health summary score (PHSS) and mental health summary score (MHSS). PHSS-12 and MHSS-12 scores range from 0 to 100, and a high score is an indication of good health.<sup>15,16</sup> In the adaptation study of the scale into Turkish, the Cronbach alpha value of the scale was calculated as 0.73 and 0.72 for the components.<sup>15</sup> In this study, Cronbach's alpha values were 0.72 and 0.70.

#### Data Collection

The data were obtained by face-to-face survey method. Patients who met the criteria were referred to the researcher by the polyclinic physician. These patients were informed about the purpose and process of the study, and written consent was obtained from those who volunteered for the study. The interviews with the patients took place in the psychiatry clinic interview room. Filling out the forms took approximately 20 min. Forms were administered by the researcher.

#### Data Analysis

IBM SPSS Statistics 22.0 (IBM Corp. Armonk, New York, AB) program was used in the analysis of data. In the analysis of the data, descriptive analyses for the data obtained from the personal information form; mean and standard deviation, *t*-test, analysis of variance (or their nonparametric equivalents), and correlation analysis were applied for the mean score of the DCSES and the SF-12 quality of life scale. The significance value was accepted as 0.05.

#### Ethical Considerations

Before starting the research, ethics committee approval was obtained from the Clinical Research Ethics Committee of Gaziantep University (Decision number: 2021/246, Date: October 13, 2021). There are usage permissions for the scales applied in the study. After the purpose of the study was explained to the individuals and their written and verbal permissions were obtained, the scales were applied by the researcher. The research was conducted in accordance with the principles of the Declaration of Helsinki.

## Results

The mean age of the patients was  $35.51 \pm 12.7$  (min: 18–max: 65). The proportion of women in the study was approximately three times that of men (73.1%). Almost half of the patients (43.6%) were primary school graduates and 71.8% of them are married. In general, the income level of the patients was equivalent to their expenses. Looking at the employment situation, it was seen that the majority (73.1%) of the patients did not have a job. Half of the patients have a family history of mental illness. Almost half of the patients (47.4%) attempted suicide at least once (Table 1).

It was found that patients diagnosed with depression had low ( $42.11 \pm 4.2$ ) and moderate ( $52.47 \pm 1.7$ ) self-efficacy perceptions. The mean score of the SF-12 quality of life scale's PHSS component was  $43.36 \pm 6.5$ , and the mean score of the MHSS component was  $44.92 \pm 8.2$  (Table 2). A very high positive and significant correlation was found between DCSSES and the PHSS and MHSS components of the SF-12 quality of life scale (Table 3).

There was a statistically significant difference between the educational level and mean scores of MHSS ( $P < 0.01$ ); between being employed in any job and mean scores of PHSS, MHSS, and the DCSSES ( $P < 0.01$ ) and between attempting suicide and mean scores of PHSS ( $P < 0.05$ ) (Table 4). There was no statistical significance between the scales with age, gender, marital status, income level, inpatient treatment for mental illness, substance use, and family history of mental illness. The features that are not significant as a result of the analysis are not listed in the table.

## Discussion

Stress and coping with stress is one of the important issues emphasized in studies on depression.<sup>17,18</sup> Being diagnosed with depression is seen as an important obstacle to the development of adaptive coping strategies. Coping is known as a multidimensional process that is effective in reducing psychological, social, emotional, and physical distress for the difficulties encountered in daily life activities. It also includes cognitive, emotional, and behavioral efforts to cope. In addition, it has been reported that the degree of depression and the status of coping are related.<sup>18</sup>

Depression causes deterioration in patients' self-efficacy, functionality, and quality of life.<sup>19-21</sup> In our study, the self-efficacy levels of depressive patients in coping with depression were mostly moderate (low level  $42.11 \pm 4.2$ ; medium level  $52.47 \pm 1.7$ ). There is no high level of self-efficacy score at all. In a national study using the same measurement tool, this average was stated as  $48.1 \pm 21.35$ .<sup>13</sup> It has been reported that low self-efficacy levels may have harmful consequences on mental health and have been associated with higher levels of depression symptoms.<sup>22</sup> In contrast, higher levels of self-efficacy, greater overall satisfaction with life,<sup>23</sup> higher subjective health ratings,<sup>24</sup> and well-being<sup>25</sup> have been associated with.

In the literature, researchers have tried to explain self-efficacy and the therapeutic effect of self-efficacy on depression within the scope of social cognitive theory.<sup>5,26</sup> Social cognitive theory argues that a lack of self-efficacy can lead to feelings of depression through a discrepancy in aspirations and perceived skills.<sup>27</sup> Depressed individuals often miss opportunities to use their skills and maintain their sense of self-efficacy because they are afraid of pleasurable or challenging activities. Ensuring self-efficacy can play an important role in regaining

**Table 1.** The Distribution of Patients by Sociodemographic Characteristics (n=78)

Characteristics	n	%
Age		
Average	$35.51 \pm 12.7$ (min:18–max:65)	
Gender		
Female	57	73.1
Male	21	26.9
Educational level		
Literate	2	2.6
Primary school	34	43.6
Middle school	16	20.5
High school	16	20.5
University	10	12.8
Marital status		
Married	56	71.8
Single	22	28.2
Income level		
Income is equal to expenses	34	43.6
Income is less than expenses	33	42.3
Income is more than expenses	11	14.1
Status of employment		
Employed	21	26.9
Unemployed	57	73.1
Receiving inpatient treatment for a mental illness		
Yes	10	12.8
No	68	87.2
Substance use (cigarette, alcohol, drugs)		
Present	22	28.2
Absent	56	71.8
Suicide attempt		
Present	37	47.4
Absent	41	52.6
History of mental illness in the family		
Yes	39	50.0
No	39	50.0

functional abilities. Therefore, measuring and assessing self-efficacy may be useful in increasing the participation of depressed individuals in therapeutic interventions.<sup>20,28</sup> Social cognitive theory suggests several possible pathways for the acquisition of self-efficacy. First, self-efficacy is built through overcoming obstacles and experiencing success, and success depends on one's own actions or contributions.

**Table 2.** The Mean Scores of the Coping Self-efficacy Scale and the SF-12 Quality of Life Scale

	n	X±SD
DCSES		
Low self-efficacy perception (under 50 points)	61	42.11±4.2
Moderate self-efficacy perception (between 50 and 75 points)	17	52.47±1.7
High self-efficacy perception (over 75 points)	-	-
SF-12		
PHSS	78	43.36±6.5
MHSS	78	44.92±8.2

PHSS: Physical health summary score, MHSS: Mental health summary score, DCSES: Depression coping self-efficacy scale.

Second, seeing you overcome similar obstacles and achieve your goals can contribute to self-efficacy. Third, self-efficacy can be promoted through social persuasion. Individuals with high self-efficacy beliefs show more perseverance when faced with obstacles.<sup>29</sup> Therefore, attempts to increase the self-efficacy of individuals with depression can help them adapt and cope with the illness.

Depressed individuals tend to think negatively about their lives and abilities.<sup>9</sup> Individuals with high self-efficacy levels can control their negative thoughts and fight depression and anxiety by transforming life-threatening situations into positive ones.<sup>6</sup> A strong sense of self-efficacy is especially protective against traumatic situations such as unemployment, divorce, illness, and depression. While psychosocial interventions used in the treatment of depression can improve depression, they can also strengthen self-efficacy. For example, techniques used in cognitive distortions can play a role in increasing the self-efficacy of individuals with depression in coping with negative thoughts.<sup>5</sup>

Self-efficacy affects the efforts of individuals in the face of obstacles, failures, and negativities. In addition, it is known that the beliefs of self-efficacy affect depression and the feelings of guilt experienced in stressful situations, and thus success levels in coping.<sup>30</sup> Self-efficacy increases motivation for behaviors that support health. As self-efficacy becomes stronger, compliance and adherence to treatment increase, physical and psychological problems decrease.<sup>31</sup> Studies have shown that self-efficacy is effective in creating behavioral change in situations such as seeking help, functioning, and compliance with treatment.<sup>20,30</sup> At the same time, all these are situations that can have a positive effect on the quality of life of individuals. In this study, the patients' quality of life was moderate both physically

**Table 3.** The Relationship Between the Coping Self-efficacy Scale and the SF-12 Quality of Life Scale

DCSES	SF-12 PHSS	SF-12 MHSS
	$r=0.915$	$r=0.895$
	<b>P=0.001</b>	<b>P=0.001</b>

PHSS: Physical health summary score, MHSS: Mental health summary score, DCSES: Depression coping self-efficacy scale.

**Table 4.** The Comparison of Mean Scores of the Depression Coping Self-efficacy Scale and the SF-12 Quality of Life Scale According to Some Sociodemographic Characteristics of the Patients

Characteristics	n	PHSS	MHSS	DCSES
Educational level				
Literate	2	47.29±3.95	51.81±6.09	46.25±5.30
Primary school	34	41.66±5.99	42.19±7.39	42.86±5.47
Middle school	16	44.23±4.19	46.59±5.35	44.42±3.72
High school	16	42.82±9.08	44.16±11.0	44.61±7.07
University	10	47.80±5.21	51.40±6.42	48.62±5.96
		KW=9.21	KW=13.01	KW=7.44
		P=.056	<b>P=.011</b>	P=.114
Status of employment				
Employed	21	46.92±6.25	49.54±8.03	47.93±5.18
Unemployed	57	42.04±6.19	43.22±7.77	43.05±5.44
		t=3.073	t=3.158	t=3.556
		P=.003	P=.002	P=.001
Suicide attempt				
Present	37	41.65±6.43	43.82±8.12	43.04±5.71
Absent	41	44.90±6.32	45.92±8.39	45.56±5.62
		t=-2.245	t=-1.119	t=-1.969
		<b>P=.028</b>	P=.266	P=.053

PHSS: Physical health summary score, MHSS: Mental health summary score, DCSES: Depression coping self-efficacy scale.

(43.36 ± 6.5) and mentally (44.92 ± 8.2). It is seen that the moderate level of self-efficacy of these patients also affects their quality of life. It is argued that self-efficacy and expectation beliefs are important for continued participation, motivation, and treatment outcomes. In the light of current findings, self-efficacy may be more targeted in treatment to reduce functional disability and increase interaction with the environment in depressed patients. Self-efficacy should be considered a goal to increase the functional performance and behavioral interaction of depressed individuals with the real world.<sup>20</sup>

Patients may experience loss of functionality due to mental distress caused by depression. They may perceive that their physical health has deteriorated due to loss of functionality and that they have lost their social and occupational functionality. A high level of significance was determined between being employed in any job and the scores of DCSES, PHSS, and MHSS. Individuals with mental disorders tend to report less distress when they have social support and use coping strategies effectively.<sup>32,33</sup> Being in a work environment and the presence of friendships can be a factor that increases the quality of life of depressed individuals. Strengthening social support in patients diagnosed with depression is recommended to improve their quality of life.<sup>34</sup>

The nature of depressive symptoms and comorbidities significantly affect the quality of life, along with social, occupational, and cognitive impairments.<sup>35</sup> Depressive individuals may turn to suicidal

behavior when they experience emotional problems and cannot cope. In the present study, the PHSS scores of those who attempted suicide were found to be low. Likewise, those who attempted suicide had low self-efficacy scores. As a result of suicidal behaviors, the physical health of individuals may be adversely affected. In a study, it was reported that patients with low educational levels were at risk for suicide attempts.<sup>36</sup> In this study, the difference between education level and MHSS is statistically significant. Those who had a high level of education and those who were literate had high scores in quality of mental life.

In the current study, a significant relationship was found between the physical and mental subcomponents of the quality of life scale and the level of self-efficacy in coping with depression. As the self-efficacy levels of depressive patients increased, their quality of life increased. A high sense of self-efficacy is effective in increasing the quality of life as well as in the fight against stress. Increasing self-efficacy in one's ability to exhibit a specific behavior has a positive effect on coping with negative situations such as depression.<sup>28</sup>

Psychiatric nurses have an important role in evaluating patients' ability to cope with depression. It also requires attention to self-efficacy when performing tasks designed to improve coping and gain control over depressive symptoms. Increasing the patient's self-efficacy regarding the ability to cope with depression results in the improvement of depressive symptoms. Regular evaluation of self-efficacy levels in coping with depression may also help determine the patients' readiness for discharge and the risk of relapse of the disease.

### Limitations

The most important limitation of the current study is that it is a mono-center and cross-sectional study. Therefore, it is difficult to generalize the study. Given that self-efficacy may change over time, the duration of treatment and care was not determined in this study. The fact that the disease duration of patients diagnosed with depression was not taken into account may also be a limitation.

### Conclusion

This study emphasizes the importance of self-efficacy in increasing the quality of life of depressed individuals. According to the study, the self-efficacy scores of depressive patients in coping with stress were found to be moderate. For this reason, measures should be taken to increase the level of self-efficacy in adapting and coping with the disease in patients followed up with a diagnosis of depression. In the study, it was determined that the quality of life of depressed individuals was also affected. The positive correlation between the scales reveals the necessity of self-efficacy in improving the quality of life of patients diagnosed with depression. Therefore, depression screening should be done and factors affecting the quality of life should be determined (loss of functionality, suicide, etc.). To determine the effectiveness of interventions, it is recommended to conduct studies with control groups that include the effectiveness of treatment and care. Planning studies that are multi-centered, with a wider sample group, and excluding cultural factors can provide more advanced results.

**Ethics Committee Approval:** This study was approved by Gaziantep University Clinical Research Ethics Committee, (Approval Number: 2021/246, Date: 13.10.2021).

**Informed Consent:** Written informed consent was obtained from the patients who agreed to take part in the study.

**Peer-review:** Externally peer-reviewed.

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