



Research Paper: Comparison of Emotion Regulation in Gastric Ulcer Sufferers and Non-Sufferers



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Abstract

Subjective: Psychological problems are involved in many psychosomatic disorders. Gastric ulcer is also related to psychological problems as one of the psychosomatic disorders. This research was conducted with the aim of comparison of emotion regulation in gastric ulcer sufferers and non-sufferers.

Methods: This research is descriptive and causal-comparative. 100 patients with gastric ulcer and referred to Imam Hussein Hospital in Tehran in 2022 were selected by convenience sampling method and compared with 100 of their companions who did not have gastric ulcer. Both groups responded to Difficulties in Emotion Regulation Scale (DERS). Data were analyzed with multivariate analysis of variance and SPSS-21 software.

Results: The findings showed that the total score of difficulties in emotion regulation and its subscales (non-acceptance of negative emotions, difficulties engaging in goal-directed behaviors, difficulties controlling impulsive behaviors, limited access to effective emotion regulation strategies, lack of emotional awareness, lack of emotional clarity) in patients with gastric ulcer is significantly higher than of non-afflicted people ($P < 0.001$).

Conclusion: According to this finding, it can be concluded that the difficulty in regulating emotions may play a role in gastric ulcers. It seems that patients with gastric ulcer are less able to identify and understand their emotions and less able to manage their emotions properly. Therefore, the accumulation of psychological pressure caused by negative emotions can cause their symptoms to appear or intensify.

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1. Introduction

Psychosomatic disorders are among those disorders that the presence of a hereditary vulnerability along with psychological problems can lead to their occurrence (Philippova et al., 2023). Gastric ulcer also has this characteristic as a psychosomatic disorder. Gastric ulcers are caused by the loss of the protective lining of the stomach due to excessive secretion of stomach acid. This acid will cause ulcers in the stomach, which in acute cases are accompanied by pain, severe inflammation and bleeding (Kumar et al., 2023). Although this disease does not have a high mortality rate, it affects a person psychologically, socially and economically due to its relatively high prevalence (about 15%) (Hamza, 2023). Researches have shown that problems in emotional regulation are one of the common psychological characteristics in people with psychosomatic disorders (Cheraghian et al., 2021; Okur Güney et al., 2019).

Emotion refers to short-term physiological changes to certain situations and stimuli (Adolphs et al., 2019). There are different types of emotions from basic to complex, some of which are positive and others are negative (González-Arias & Aracena, 2022). Managing and regulating emotions, especially negative emotions such as anger, fear and sadness is one of the important mechanisms in people with mental health (Wong et al., 2023). On the other hand, people with mental disorders often have problems in regulating their emotions (Igra et al., 2023). These people cannot regulate the intensity and duration of their emotions and

as a result, they are often in a state of physiological arousal, which can cause them problems both physically and psychologically in the long run. In relation to psychosomatic disorders and gastric ulcers, it has also been stated that a hereditary talent along with psychological problems and stress can lead to its occurrence (Levenstein et al., 2015; Weiming Gong et al., 2023). According to the diathesis-stress model, people with gastric ulcers cannot react effectively to the stress they experience and the emotions they experience, and therefore have problems in the areas that are genetically more vulnerable (Overmier & Murison, 2000). So far, the researchers have shown weakness in emotional regulation problems in patients with digestive problems (Batebi et al., 2020; Mazaheri, 2015). According to the stated contents, this research also intends to compare emotion regulation in patients with gastric ulcer and non-sufferers.

2. Methods

2.1. Statistical Population, Sample, and Sampling Method

This research is descriptive and causal-comparative. The research population was the patients with gastric ulcer referred to Imam Hussein Hospital in Tehran in 2022 along with their companions. 100 patients were selected by convenience sampling method and compared with 100 of their companions who did not have gastric ulcer. The consent of both groups was obtained to participate in the research, and confidentiality was maintained in keeping the

participants' information. Both groups responded to Difficulties in Emotion Regulation Scale (DERS). Data were analyzed with multivariate analysis of variance and SPSS-21 software.

2.2. Instruments

Difficulties in Emotion Regulation Scale (DERS): DERS created by Gratz & Roemer (2004). It is a 36-item instrument and it measures people's emotional regulation deficiencies in a 5-point Likert scale from 1 (almost never) to 5 (almost always). It includes 6 subscales of non-acceptance of negative emotions (items 11, 12, 21, 23, 25, 29), difficulties engaging in goal-directed behaviors (items 13, 18, 20, 26, 33), difficulties controlling impulsive behaviors (items 3, 14, 19, 24, 27, 32), limited access to effective emotion regulation strategies (items 2, 6, 8, 10, 17, 34), lack of emotional awareness (items 15, 16, 22, 28, 30, 31, 35, 36), and lack of emotional clarity (items 1, 4, 5, 7, 9). A total score of emotion regulation

difficulty is obtained from the sum of responses to all items, where a higher score indicates greater difficulty in emotion regulation. In the research of Gratz & Roemer, (2004), the factorial structure of the scale was obtained and the internal consistency was reported as 0.93. In Iran, Besharat (2017) confirmed the factor structure of this scale and reported the internal consistency of the subscales from 0.72 to 0.92.

3. Results

The mean and standard deviation of the age of people with gastric ulcer were 38.42 and 4.82 and those without it were 39.27 and 4.18. Among the group with gastric ulcer, 22 people were women and the rest were men. In the group of non-infected people, 66 were women and the rest were men. The mean and standard deviation of the emotion regulation difficulty and its subscale are presented in Table 1.

Table 1

The mean and standard deviation of the emotion regulation difficulty and its subscale

	M±SD	M±SD
	Patients with gastric ulcer	People without gastric ulcer
Non-acceptance of negative emotions	24.08±0.95	11.79±3.64
Difficulties engaging in goal-directed behaviors	22.43±1.38	10.46±1.71
Difficulties controlling impulsive behaviors	27.94±1.23	16.96±1.42
Limited access to effective emotion regulation strategies	26.41±1.53	18.60±1.02
Lack of emotional awareness	34.77±1.38	23.11±2.67
Lack of emotional clarity	23.50±0.83	15.37±1.44
Total score of difficulty in emotion regulation	150.32±2.64	73.51±3.26

As can be seen in [Table 1](#), the total score of the difficulty in emotion regulation and its subscales are higher in people with gastric

ulcer. The results of the Kolmogorov-Smirnov test to check the normality of the data distribution are presented in [Table 2](#).

Table 2
Kolmogorov-Smirnov test to check the normality of the data distribution

	F	P
Non-acceptance of negative emotions	0.51	0.83
Difficulties engaging in goal-directed behaviors	0.37	0.96
Difficulties controlling impulsive behaviors	0.60	0.74
Limited access to effective emotion regulation strategies	0.55	0.79
Lack of emotional awareness	0.51	0.83
Lack of emotional clarity	0.42	0.92
Total score of difficulty in emotion regulation	0.61	0.73

As seen in [Table 2](#), the non-significance of the Kolmogorov-Smirnov statistic shows that the data distribution is normal. The results of

Levene's test to check the homogeneity of variances are presented in [Table 3](#).

Table 3
Checking the homogeneity of variances

	F	df ₁	df ₂	p
Non-acceptance of negative emotions	1.18	1	198	0.73
Difficulties engaging in goal-directed behaviors	1.04	1	198	0.86
Difficulties controlling impulsive behaviors	1.42	1	198	0.50
Limited access to effective emotion regulation strategies	1.28	1	198	0.66
Lack of emotional awareness	1.39	1	198	0.52
Lack of emotional clarity	1.01	1	198	0.89
Total score of difficulty in emotion regulation	1.58	1	198	0.41

The non-significance of Levene's test shows that the assumption of homogeneity of

variances is valid. The results of multivariate analysis of variance are presented in [Table 4](#).

Table 4
The results of multivariate analysis of variance

	Sum of squares	df	Mean squares	F	P
Non-acceptance of negative emotions	201.43	1	201.43	3.20	0.001
Difficulties engaging in goal-directed behaviors	186.77	1	186.77	1.71	0.001
Difficulties controlling impulsive behaviors	236.59	1	236.59	3.72	0.001
Limited access to effective emotion regulation strategies	216.05	1	216.05	3.50	0.001
Lack of emotional awareness	168.24	1	168.24	1.58	0.001
Lack of emotional clarity	218.62	1	218.62	3.55	0.001
Total score of difficulty in emotion regulation	227.34	1	227.34	3.60	0.001
	Wilks' lambda	F	P	Eta ²	Test power
Group	0.71	0.001		0.71	100

As can be seen in [Table 4](#), there is a significant difference between the two groups in the total score of difficulty in emotion regulation and its subscales.

4. Discussion

This study was conducted with the aim of comparing emotion regulation in two groups of people with gastric ulcer and non-sufferers. The findings showed that the

emotion regulation score was lower in people with gastric ulcer and these people have more difficulty in regulating their emotions. This finding is consistent with previous studies ([Eftekhari et al., 2022](#); [Muazzam et al., 2021](#); [Xiao et al., 2021](#)). For example, in the study of [Eftekhari et al. \(2022\)](#), it was shown that patients with gastric ulcer have problems in regulating their emotions, and teaching emotional regulation strategies can reduce avoidant coping methods and strengthen

active methods of emotion regulation in them.

In explaining this finding, it should be noted that the problem in emotion regulation is one of the common problems in psychosomatic disorders (Okur Güney et al., 2019). These people are not able to understand and identify their emotions well. In addition, they cannot accept their negative emotions and express and manage them properly. For this reason, in emotional situations, they behave impulsively and cannot show purposeful behavior. All these features cause them to always experience higher physiological arousal and This physiological arousal can be associated with the weakness of the immune system (Mella et al., 2011). As a result, they experience disorders in the digestive system. In this way, the protective mucus inside the stomach becomes ineffective, and the stomach produces strong acid to help digest food and fight against microbes. This process will gradually cause the formation of stomach ulcers.

Although this research selected the convenience sample and the necessary sensitivities were not considered in the control of intervening variables, but it can be seen that psychological problems and here difficulty in regulating emotions can play a role in the occurrence of physical problems. Counseling centers should be opened in hospitals to provide psychological counseling to patients with psychosomatic problems. By doing this, they can increase the emotional regulation skills of these patients and reduce the occurrence of physical problems in them.

5. Conclusion

The findings of this study showed that patients with gastric ulcer face more difficulty in controlling their emotions than non-afflicted people. Providing psychological counseling to these patients can reduce the severity of their problems.

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Conflicts of Interest

There is no conflict of interest.

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