

Self-Criticism and Self-Compassion among Patients with Autoimmune, Non-autoimmune Disorders and Healthy Individuals in Bandar Abbas

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Abstract

Background and Objective: The purpose of this study was to test and present a causal model of psychological self-esteem based on self-knowledge and feelings of shame and guilt, with self-critical mediation and compassion in three groups of healthy individuals, autoimmune patients and non-autoimmune patients in Bandar Abbas.

Method: The design of this study is correlational. The statistical population of the present post-event study included 360 patients including 120 patients with autoimmune diseases, 120 patients with non-autoimmune diseases referring to the Great Prophet's Therapeutic Complex in Bandar Abbas in 1398, and 120 healthy individuals. Autoimmune patients will be selected by simple or accessible sampling. All subjects will complete a self-report questionnaire. Descriptive statistics were used for data analysis. Confirmatory factor analysis, Cronbach's alpha, Spearman-Brown split, and Gutman split will be used to determine validity and reliability. Subsequently, analyzes of the underlying assumptions of structural equation modeling as well as broader and more sophisticated analyzes will be performed to evaluate the fitness of the proposed model, all of which will be applied through statistical equation modeling, using maximum likelihood estimation. Indirect path relations will also be used by the proposed method of Baron and Kenny and Cohen and Cohen. The indirect relationships were tested by using the Bootstrapping method.

Results: The results showed a relatively good fit of the data model. The mediating effect of self-criticism and self-compassion on the relationship between self-destruction and feelings of shame and guilt was also confirmed and feelings of shame and guilt and self-criticism bears a positive and significant relation with self-destruction based on self-knowledge, and self-compassion bears a negative and significant relation with self-destruction based on self-knowledge. The average of feelings of shame and guilt and self-destruction based on self-knowledge in men is higher than women, and the average of self-criticism in women is higher than men.

Conclusion: The findings were discussed in accordance with the teleological coherence's hypothesis in the coordinated function of the immunological, neurological and psychological systems and the basis for designing appropriate cognitive therapies for autoimmune patients.

Keywords: Autoimmune diseases, Self-Consciousness, Shame and Guilt, Self-Criticism, and Self-Compassion

Background and Objective

Extensive research since the 1980s has emphasized the need to reconsider the concepts of physical and mental dualism. Consequences of believing in mind-body entanglement include the broad concept of psychosomatic disorders and the emergence of a new range of health psychology and behavioral medicine, the entanglement of physical and mental health, and the integration, coherence, and relativity of medical science and psychology¹. One of the almost new branches of health psychology is psychoneuroimmunology (PNI), which addresses the impact of psychological factors on the behavior and function of the immune system, which ultimately increases the risk of disease^{2,3}. Research in this field showed that personality and emotional constructs simultaneously affect mental health and immunological and physiological responses and play an important role in the occurrence and prevention of diseases⁴.

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The traditional approach to the role of the immune system as a protective factor has been derived from studies showing that a person becomes immune to an infectious and inflammatory disease after contracting it. Such immunity can also be guaranteed through vaccination. This approach considers the immune system as a system that produces specific antibodies in response to pathogens. This model basically assumes that the immune system must distinguish between autoantibodies (one of the body's natural components) and alloantigens (usually not body parts, pathogens, and enemies of the body). Thanks to this capability, the immune system is active and sensitive to non-native antigens and inactive to autoantibodies⁵.

General theories of psychology have always emphasized that there is no boundary between the biological and psychological dimensions of man. Various studies have shown a link between psychological and biological levels, namely, mind and body. People with stressful lives show greater vulnerability to respiratory infections. Wounds heal later in people who experience stressful situations permanently and chronically⁶. Research findings indicate the effect of how to overcome the aroused emotion in a particular situation, positive and negative moods, jokes, crying and laughter, and problem-solving strategies on the severity and weakness of the immune system⁷. Based on the "teleological coherence" hypothesis, (Booth & Ashbridge, 1993) observed a kind of coherence in all systems of an organism, including the nervous, immune, endocrine glands, and psychological systems⁸. These systems strive to achieve and maintain their "identity" as the ultimate goal of this formation process. This ultimate goal explains the relationship between the various systems of the organism. According to Booth, the nature of the relationship between the various systems of an organism is affected by the need to "coordinate their goals." That is, all systems seek to achieve a common goal, an

independent identity. We can better understand and predict the performance of any system when the goal pursued by each system, namely the achievement of an independent identity, is placed next to the goals pursued by other systems. Thus, according to the "teleological coherence" hypothesis, if the destroyed boundary between "self" and "non-self" in one system (e.g., the immune system) is likely to lead to the degraded boundaries in other systems (e.g., the psychological system) and Conversely. This hypothesis may lead to the conclusion that immune and psychological systems should pursue a common goal.

Therefore, people with self-destructive tendencies are more likely to develop autoimmune diseases - with a broken boundary between "self" and "non-self" compared to people without such tendencies and vice versa. Also, since self-destruction is a form of cognitive dissonance, self-coordinating processes such as integrative self-knowledge (ISK) and mindfulness can be assumed to be impaired in patients with autoimmune diseases, based on the teleological coherence hypothesis⁹. A literature review shows that little research has been done to examine specific interaction processes between the immune and psychological systems and explain why this effect has occurred. One study has addressed the feelings of guilt and tendencies of self-criticism and self-knowledge of patients with autoimmune and non-autoimmune diseases and non-sick individuals¹⁰. Another study compared self-destruction trends in patients with autoimmune and non-autoimmune diseases and non-patients¹¹. Given the extensive study of psychoneuroimmunology (PNI) and its importance in health psychology, researchers have sought to discover the interrelationships of different systems of the organism, especially the immune and psychological systems. Therefore, discovering any connection between these two systems helps researchers and clinical professionals to

predict the behavior of the other system, a practical step towards understanding the underlying processes of the organism systems and more effective therapeutic interventions. Therefore, by testing the "teleological coherence" and "goal coordination" hypotheses in different organism systems, this study aims to provide a theoretical basis. The aim is to explain more broadly and holistically the results of atomistic studies in psychology, neuroscience, immunology, and the relationship between immune and psychological systems. By examining different theories about self-destruction variables, the researcher found that it is necessary to examine the causal relationship between psychological self-destruction based on self-knowledge and shame and guilt with the mediating role of self-criticism and self-compassion in patients with autoimmune diseases in Bandar Abbas. Accordingly, he proposed a model using structural equation modeling. The novelty of this study lies in the fact that it examines the causal relationship between psychological self-destruction based on self-knowledge and shame and guilt with the mediating role of self-criticism and self-compassion in patients with autoimmune diseases. This study also intends to investigate the effectiveness of methods of reducing psychological self-destruction based on self-knowledge for the first time in Iran.

Methods

This is a correlational study. In this causal-comparative study, 120 patients with autoimmune diseases, 120 patients with non-autoimmune diseases, 120 employees working in different departments, and healthy individuals referred to Psychiatrist, Psychiatry and Behavioral Sciences Research Center, Ibn-e-Sina Hospital, were examined by convenience sampling method. Patients with autoimmune and non-autoimmune diseases referred to Payambar Azam Medical and Research Complex of Bandar-Abbas were selected. Following the initial sampling of

patients selected from the research population, the patient's consent was obtained to participate in the study and review and test the inclusion and exclusion criteria in the final sample. In this study, the main criteria for inclusion in the sample of patients with autoimmune diseases were: 1) definitive diagnosis of autoimmune diseases by specialists in Hormozgan province or across the country, 2) at least two months must have passed since the onset of the disease, 3) they must be in the age range of 13-70 years. The main criteria for exclusion were: 1) having a chronic physical illness other than autoimmune diseases, 2) a clear reason for having a disease other than autoimmune, and 3) illiteracy. In this study, initial screening was performed using medical history and prescribed therapies, followed by data collection using the Integrative Self-Knowledge Scale (ISK), Personal Feeling Questionnaire (PFQ) (shame and guilt), Self-Compassion Scale (SCS), and Levels of Self-Criticism Scale (LSCS)¹².

Integrative Self-Knowledge Scale (ISK):

The Integrative Self-Knowledge Scale (ISK) was developed by (Ghorbani et al., 2008)¹³, consisting of 12 items. ISK includes three subscales: reflective self-knowledge, experiential self-knowledge, and integrative self-knowledge. Each ISK item is graded based on five options (0 for Mostly False, 1 for somewhat False, 2 for neither True nor False, 3 for Somewhat True, and 4 for Mostly True). The low scores of the ISK item indicate psychological self-destruction based on self-knowledge. In a study of three Iranian and three American samples, Cronbach's alpha of this scale was reported to be 0.82, 0.81, and 0.81 in the first, second, and third Iranian samples, and 0.78, 0.78, and 0.74 for the first, second, and the American third, respectively. The high score on this scale was associated with evaluating self-knowledge-dependent

behavioral traits in altmetrics in both cultures. In another study, the Cronbach's alpha scale was reported to be 0.79¹⁴. The validity of this tool was confirmed in studies that tested personality¹⁵, mental health¹⁶, and coping and self-regulation. In predicting health, mental self-knowledge has increased validity compared to the five major personality factors. In addition, personality factors can explain mental health¹⁷.

Personal Feeling Questionnaire (PFQ):

The Personal Feeling Questionnaire (PFQ) was developed by (Harder & Zalma, 2018) and includes 22 terms and six subscales: shame, guilt, externalization, detachment, alpha pride, and beta pride. Responders respond to it on a five-point continuum (0 for "I do not experience this feeling at all," 1 for "I rarely experience this feeling," 2 for "I experience this feeling occasionally," 3 for "I experience this feeling frequently but not permanently," and 4 for "I experience this feeling constantly." This scale includes 16 words related to shame and guilt, ten words related to feelings of shame, and six words related to feelings of guilt¹⁸. (Tangney et al., 2000) introduced the Test of Self-Conscious Affect-3 short version (TOSCA-3 short version). In this scale, materials have been selected from PFQ and Adapted Shame and Guilt Scale (ASGS) based on the theory of (Tangney et al., 2000), according to the commonly used words related to shame and guilt in Iranian culture. Cronbach's alpha was reported to be 0.84 for the emotion of shame and 0.88 for the emotion of guilt. Its test-retest score was reported to be 0.93 for the shame subscale and 0.85 for the guilt subscale¹⁹.

Self-Compassion Scale (SCS):

The Self-Compassion Scale (SCS) was developed by (Neff, 2003) and contained 26

items. The respondent responds to them on a five-point continuum. This scale measures three bipolar components in six subscales: self-kindness, self-judgment, mindfulness, over-identification, common humanity, and isolation. Its validity and reliability were evaluated as appropriate. The respondent responds to SCS statements on a five-point continuum. Each SCS item is scored based on five options (1 for strongly disagree, 2 for disagree, 3 for indifferent, 4 for agree, and 5 for strongly agree). SCS consists of three dipoles in six subscales: self-kindness/self-judgment, common humanity/isolation, and mindfulness/over-identification. The total score is in the range of 0-64. The total scores of shame and guilt are in the range of 0-40 and 0-24, respectively. Cronbach's alpha was reported to be 0.81 for self-kindness, 0.79 for self-judgment, and 0.84 for human commonalities, which was 0.85 for isolation. It was 0.80 for mindfulness, which was 0.83 for over-identification, and 0.76 for the overall scale. Reportedly, the questionnaire had acceptable validity²⁰.

Levels of Self-Criticism Scale (LSCS):

Levels of Self-Criticism Scale (LSCS) was developed by (Thompson & Zuroff, 2017), consisting of 22 items. It uses a 7-point (0-6) scoring system: 0 for completely false, 1 for almost false, 2 for somewhat false, 3 for neither true nor false, 4 for somewhat true, 5 for almost true, And 6 for perfectly correct. LSCS consists of two components: Internalized Self-Criticism (ISC) and Comparative Self-Criticism (CSC). This questionnaire has been used in several studies in Iran. By performing on 468 students using the factor analysis method, and the correlation coefficient of items with the total score, the validity of the scale has been favorable. Also, the reliability of the scale was estimated to be 0.89 using Cronbach's alpha method. The study also reaffirmed its validity at 0.91 using

Cronbach's alpha. Cronbach's alpha was reported to be 0.84 and 0.88 for two subscales, Comparative Self-Criticism (CSC) and Internalized Self-Criticism (ISC), respectively. Correlations were obtained for these two subscales of -0.66 and -0.52, respectively, and 0.60 and 0.54 for NEO-PI-R's affective instability subscale, respectively²¹.

Procedure

To conduct this research, we first collaborated with internal medicine physicians or autoimmune diseases specialists to identify patients with autoimmune and non-autoimmune diseases. They were invited to collaborate through the Integrative Self-knowledge scale (ISK), the shame and guilt questionnaire, the Self-Compassion Scale (SCS), and the Levels of Self-Criticism (LOSC) Scale. They were asked to complete these questionnaires. The steps of completing the questionnaire were explained orally to the subjects. They were then asked to study and complete the tool according to the demographic information of the questionnaire after describing its importance, research objectives, and work steps, as well as ensuring the confidentiality of individuals' information and obtaining informed consent from them.

The coding method was used instead of the name. Descriptive statistics (such as mean, standard deviation, and correlation) were used to analyze the data. Validity and reliability were determined using confirmatory factor analysis (CFA), Cronbach's alpha, Spearman-Brown split-half reliability coefficient, and Guttman split-half reliability coefficient. Then, (Hasking, 2018) underlying assumptions were analyzed. More extensive and complex analyzes were performed to assess the suitability of the proposed model, all of which were applied by (Hasking, 2018) using maximum likelihood estimation. Indirect relationships between paths were also

determined using the proposed method (1 and 10). All analyzes were performed using a statistical package for social science (SPSS) version 19 and analysis of moment structures (AMOS) version 16²².

Results

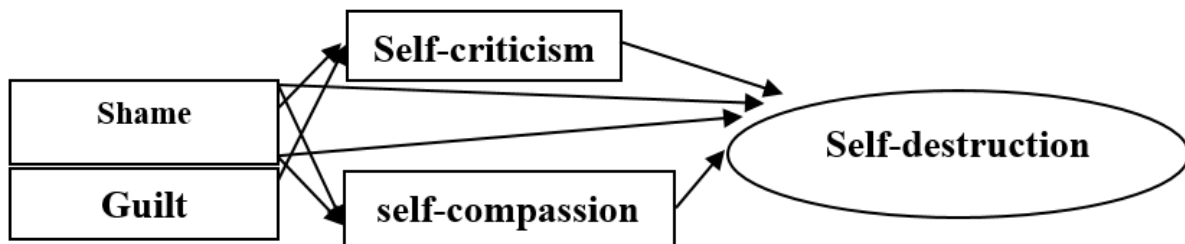
This sample consisted of 33.33% female and 66.66% male. The group of healthy people consisted of 70.83% women and 29.17% men. The group of patients with non-autoimmune diseases also consisted of 68.33% female and 31.67% male. Also, the group of patients with autoimmune diseases included 60.83% women and 39.17% men. This sample consisted of 122 (33.9%) single and 238 (66.1%) married. The group of healthy individuals also included 44 (36.67%) single and 76 (63.33%) married. In addition, the group of patients with non-autoimmune diseases consisted of 38 (31.67%) single and 82 (68.33%) married. The group of patients with autoimmune diseases included 40 (33.33%) single and 80 (66.67%) married. This sample consisted of 2.51% with a postgraduate degree, 24.72% with a diploma degree, 16.94% with a master's degree, 48.61% with a bachelor's degree, and 7.22% with a master's degree and above. The group of healthy individuals included 22.22% with an associate degree, 16.28% with a diploma degree, 19.67% with an associate degree, 42.29% with a bachelor's degree, and 69.23% with master's degree and above. The group of patients with non-autoimmune diseases consisted of 22.22% with a postgraduate degree, 40.45% with a diploma degree, 42.62% with a postgraduate degree, 29.71% with a bachelor's degree, and 15.39% with a master's degree and above. The group of patients with autoimmune diseases also consisted of 55.56% with undergraduate degrees, 43.82% with a diploma degree, 37.71% with master's degree, 28% with bachelor's degrees, and 15.39% with master's degree and above (Table 1).

Table 1. Descriptive data of research variables for three groups separately

		Self-knowledge	Shame	Guilt	Compassion	Self-criticism
Healthy people	Mean	2.57	1.25	1.74	2.36	3.20
	SD	0.66	0.66	0.56	0.76	1.28
	Cronbach's alpha	0.80	0.82	0.62	0.55	0.87
Patients with non-autoimmune diseases	Mean	2.33	1.23	1.62	2.48	3.42
	SD	0.57	0.65	0.71	0.82	1.21
	Cronbach's alpha	0.69	0.78	0.68	0.53	0.77
Patients with autoimmune diseases	Mean	2.09	1.20	1.63	2.43	3.58
	SD	0.70	0.65	0.70	0.91	1.30
	Cronbach's alpha	0.72	0.78	0.66	0.51	0.81

In this study, the structural model consists of five variables, including two exogenous variables (i.e., shame and guilt), a mediator (self-criticism, self-compassion), and one

endogenous variable (psychological self-destruction). The analysis results of the proposed model are shown in (Figure 1).

**Figure 1:** Conceptual model of relationships between research variables

Before examining the suitability characteristics of the proposed model, the path coefficients of direct relationships between the research variables in this model were

investigated. (Table 2) lists the direct relationship path coefficients and other measurement parameters of the proposed model variables.

Table 2. Parameters for measuring direct relationships in the modified model in individuals with autoimmune diseases

Path	Standardized estimate (β)	Unstandardized estimate (B)	Standard error	Critical ratio (CR)	Level of significance (p)
Feeling ashamed of self-compassion	-0.43	-0.23	0.042	-5.75	≤ 0.001
Feeling ashamed of psychological self-destruction	0.68	0.18	0.01	18	≤ 0.001
Feeling ashamed of self-criticism	0.49	0.19	0.02	9.50	≤ 0.049

Path	Standardized estimate (β)	Unstandardized estimate (B)	Standard error	Critical ratio (CR)	Level of significance (p)
Feeling guilty about self-compassion	-0.63	-0.12	0.09	-1.33	≤ 0.001
Feeling guilty about psychological self-destruction	0.52	0.25	0.04	12.50	≤ 0.042
Feeling guilty about self-criticism	0.48	0.29	0.03	9.66	≤ 0.048
self-criticism to psychological self-destruction	0.27	0.32	0.07	4.57	≤ 0.05
self-compassion to psychological destruction	-0.22	-0.35	0.06	-5.83	≤ 0.05

Figure 2 shows the standard coefficients of the model in individuals with autoimmune diseases.

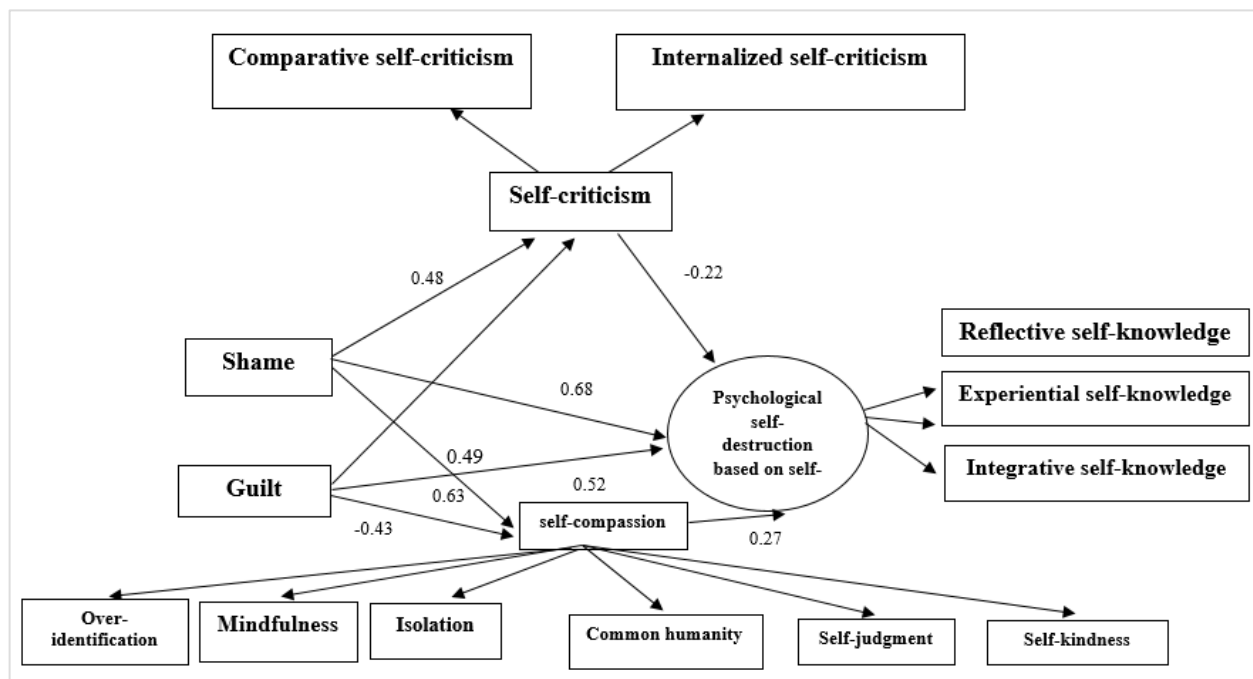


Figure 2: Standard model coefficients for people with autoimmune diseases

Based on the standard coefficients and the corresponding critical values in Table 2, all straight paths in the model are significant.

Table 3 presents the goodness-of-fit characteristics of the modified model.

Table 3. Goodness-of-fit characteristics of the modified model in individuals with autoimmune diseases

Fitness characteristics	Value
Chi-square (X^2) goodness-of-fit test	8.92
Level of significance	0.165

Fitness characteristics	Value
Degree of Freedom (df)	7
Chi-Square-to-Degree of Freedom Ratio (X^2/df)	1.27
Goodness-of-fit index (GFI)	0.91
Adjusted goodness-of-fit index (AGFI)	0.86
Normed fit index (NFI)	0.91
Comparative fit index (CFI)	0.92
Incremental fit index (IFI)	0.92
Tucker-Lewis index (TLI)	0.91
Root mean square error of approximation (RMSEA)	0.079

As shown in Table 3, the chi-square (X^2) goodness-of-fit test value is 8.92 with a degree of freedom of 7 at a significance level of 0.165, an appropriate value. The other goodness-of-fit features of the model, presented in the table above, had good values. The proposed model can be said to fit the data

in individuals with autoimmune diseases. In this model, 60.6% of the psychological variance of self-destruction is predicted by model variables based on self-knowledge.

Table 4 presents the parameters for measuring direct relationships in the proposed model in individuals with non-autoimmune diseases.

Table 4. Parameters measuring direct relationships in the proposed model in people with non-autoimmune diseases

Path	Standardized estimate (β)	Unstandardized estimate (B)	Standard error	Critical ratio (CR)	Level of significance (p)
Feeling ashamed of self-compassion	-0.128	-0.03	0.026	-1.174	0.241
Feeling ashamed of psychological self-destruction	0.162	0.13	0.072	1.761	0.078
Feeling ashamed of self-criticism	0.169	0.55	0.275	2.000	0/046
Feeling guilty about self-compassion	-0.133	-0.06	0.045	-1.446	0.148
Feeling guilty about psychological self-destruction	0.185	-0.03	0/019	-1.563	0.118
Feeling guilty about self-criticism	0.150	0.12	0.070	1.654	0.098
self-compassion to self-criticism	-0.217	-1.07	0.378	-2.817	0.005
self-criticism to psychological destruction	0.119	0.06	0.043	1.322	0.186
self-compassion to psychological self-destruction	-0.114	-0.11	0.02	-3.21	0.07

Table 5 lists the measurement parameters of direct relationships in the proposed model in healthy individuals.

Table 5. Parameters measuring direct relationships in the proposed model in healthy individuals

Path	Standardized estimate (β)	Unstandardized estimate (B)	Standard error	Critical ratio (CR)	Level of significance (p)
Feeling ashamed of self-compassion	-0.117	-0.02	0.019	-1.157	0.240
Feeling ashamed of psychological self-destruction	0.156	0.12	0.068	1.67	0.070
Feeling ashamed of self-criticism	0.145	0.41	0.246	1.879	0.040
Feeling guilty about self-compassion	-0.121	-0.04	0.032	-1.326	0.136
Feeling guilty about psychological self-destruction	0.176	-0.02	0.014	-1.472	0.115
Feeling guilty about self-criticism	0.142	0.10	0.047	1.456	0.08
self-compassion to self-criticism	-0.115	-1.04	0.340	-2.726	0.004
self-criticism to psychological destruction	0.11	0.04	0.027	1.232	0.167
self-compassion to psychological self-destruction	-0.09	-0.10	0.01	-3.13	0.05

As shown in Tables 4 and 5, the direct paths of the proposed model have a relatively unsuitable standard estimation coefficient (>0.3) for people with non-autoimmune diseases and healthy people. Based on the standard coefficients and the corresponding critical values in the table, not all direct paths of the proposed model are significant. In light of the above, the proposed model lacks the necessary fit for people with non-autoimmune diseases and healthy people.

Discussion

This study aimed to model the structural equations of the effect of shame and guilt on psychological self-destruction (based on self-knowledge) with the mediating role of self-criticism and self-compassion of individuals

with autoimmune and non-autoimmune diseases and healthy individuals. The research question was, "Does shame and guilt directly affect self-knowledge-based psychological self-destruction in patients with autoimmune diseases, and at the same time, self-criticism also affects self-knowledge-based psychological self-destruction in "Patients with autoimmune diseases through mediations such as self-compassion?" The analysis results showed that the conceptual and hypothetical models fit well with the data of the present sample in individuals with autoimmune diseases calculated based on indices. The fit of the proposed model was examined, indicating that it fit data for individuals with autoimmune diseases, while it failed to fit data for individuals with non-autoimmune diseases and healthy individuals.

According to the results of this study, feelings of shame directly affected psychological self-destruction (based on self-knowledge) in patients with autoimmune diseases. This can be explained by the fact that the mental and physical systems operate in parallel, according to the teleological coherence hypothesis. Also, there may be a causal dialectical relationship at the psychological and immunological levels in patients with autoimmune diseases. Simply put, autoimmune diseases require physical self-destruction, on the one hand, and physical self-destruction in patients with autoimmune diseases is expected to be associated with psychological self-destruction, such as depression and shame, on the other²³. This study showed that guilt had a direct positive effect on psychological self-destruction (based on self-knowledge) in patients with autoimmune diseases. This can be explained by the fact that the mental and physical systems operate parallel, according to the teleological coherence hypothesis, with coordinated teleology as its fundamental principle. Also, there may be a causal dialectical relationship at the psychological and immunological levels in patients with autoimmune diseases. Because of overlapping goals, immunocompromised self-destruction may be associated with psychological self-destruction, such as guilt. According to teleological coherence theory, lack of internal coherence with high guilt is expected to increase psychological damage, such as depression, anxiety, low self-esteem, and guilt, in patients with autoimmune diseases.

This study showed that self-compassion had a direct negative effect on psychological self-destruction (based on self-knowledge) in patients with autoimmune diseases. This can be explained by the fact that it can be stated that immunological self-destruction may be associated with Psychological self-destruction and vice versa, according to the theory of teleological coherence²⁴. Self-compassion is

an adaptive construct that helps increase integrative self-knowledge and reduce psychological problems by increasing mindfulness, acceptance without judgment, empathy, and constant attention to inner feelings. Studies on compassion and the immune system's responses to stress have shown that compassionate individuals will experience positive outcomes. Self-compassion acts as a protective factor against stress-induced inflammation and inflammatory diseases on the immune system by increasing the plasma concentration of interleukin 6 (IL-6).

Self-compassion can reduce severe depression and self-criticism. According to this study results, self-criticism had a direct positive effect on psychological self-destruction (based on self-knowledge) in patients with autoimmune diseases. This can be explained by the fact that the lack of internal coherence is expected to be accompanied by high self-criticism. And increase psychological damage in patients with autoimmune diseases, based on the theory of teleological coherence. Integrative self-knowledge and self-criticism are two contrasting and independent psychological processes that facilitate and disrupt the internal coherence of the psychological system, respectively.

Moreover, that feelings of shame affect psychological self-destruction in patients with autoimmune diseases through self-compassion. This can be explained by the fact that self-compassion is a multidimensional construct stating that the suffering of helplessness and imperfection of the body is part of the natural human condition, which enables one to become more adaptable in accepting one's limitations without shame and guilt.

Additionally, guilt was shown to affect psychological self-destruction in patients with autoimmune diseases through self-

compassion. This can be explained by the fact that self-compassion helps moderate a person's negative thoughts and feelings about themselves and frees them from negative rumination, self-blame, and guilt²⁵.

Conclusion

Feelings of shame affect psychological self-destruction in patients with autoimmune diseases through self-criticism. This can be explained by the fact that the lack of inner coherence is expected to be accompanied by high self-criticism and increased psychological damage, such as shame, based on teleological coherence theory. People with autoimmune diseases often develop a negative body image, have low self-esteem, and feel ashamed of their bodies. Shame is a self-conscious emotion evoked by self-reflection, self-evaluation, and self-criticism. In addition, guilt affects psychological self-destruction in patients with autoimmune diseases through self-criticism. This can be explained by the fact that self-criticism leads one to think that one has a defective function and to try to define unattainable criteria, leading to withdrawal from social networks. Self-criticism has played a more predictive role in the severity of depression than other variables. Some researchers believe that the trend of self-attack and self-destructive behavior can be explained by recognizing depression as an autoimmune disease. The results also showed a significant difference between men and women with autoimmune diseases. A significant difference was also observed between the mean of shame, self-criticism, and psychological self-destruction based on self-knowledge, in men and women with autoimmune diseases. The mean of shame and psychological self-destruction based on self-knowledge was higher in men than women, while the mean of self-criticism was higher in women than men.

Competing Interests

The authors declare no competing interests.

Authors' Contributions

The authors contributed equally to the writing of the article

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