Shiraz E-Med J. 2022 June; 23(6):e112212. doi: 10.5812/semj.112212.

Published online 2022 February 28. **Research Article**

Relationships of Shame, Guilt, and Self-compassion with Post-traumatic Growth Among Multiple Sclerosis Patients

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Received 2020 December 15; **Revised** 2021 October 27; **Accepted** 2022 January 04.

Abstract

Background: Multiple sclerosis (MS) is among the most important central nervous system diseases and the most prevalent neurological disease in humans. It is affecting the patient's individual and social performance. Post-traumatic growth (PTG) is the experience of positive personal change due to confrontation with a crisis or traumatic event.
Objectives: This study aimed to investigate the relationship of shame, guilt, and self-compassion with PTG in MS patients.
Methods: In this descriptive correlational study, the statistical population consisted of all MS patients referred to the MS Societies of Zahedan and Mashhad in 2018. Forty-six patients were selected using a convenience sampling method. Data collection tools were the Post-traumatic Growth Inventory, the State of Shame and Guilt Scale, and the Self-compassion scale. Data analyses were carried out using Pearson correlation and stepwise regression analysis.
Results: Shame ($r = -0.48$, $P \leq 0.00$), guilt ($r = -0.44$, $P \leq 0.002$), and both of them ($r = -0.49$, $P \leq 0.001$) were significantly and diversely related to PTG. Also, self-compassion had a significant positive relationship with PTG ($r = 0.32$, $P \leq 0.01$). Stepwise regression analysis indicated that shame and guilt, when entered the equation in the first step, could determine 0.22 of the PTG variance.
Conclusions: It is suggested that educational classes and training workshops be held to promote self-compassion and decrease shame and guilt among MS patients.

Keywords: Post-traumatic Growth, Shame, Guilt, Self-compassion, Multiple Sclerosis

1. Background

Multiple sclerosis (MS) is among the most important central nervous system diseases, the most prevalent neurological disease in humans, and the most common disease leading to disability in young people, affecting 2.5 million people worldwide (1). Patients with chronic diseases experience psychological effects, such as anxiety, depression, and fear of future pain. Besides, MS patients are not likely to have normal general health, energy, physical function, and social roles (2).

In recent years, positive psychology has introduced the concept of post-traumatic growth. Post-traumatic growth (PTG) refers to positive psychological changes in the face of significant challenges and traumatic events, resulting in the modifications of cognition and emotions leading to changes in behavior (3, 4). Post-traumatic growth includes increased personal strength, recognizing new opportunities, a greater appreciation for life, improved relationships with others, and positive spiritual changes (5). Grubaugh and Resick (6) discussed studies reporting PTG and its consequences, including changes in self-perception, changes in relationships with others, increased awareness of new possibilities, and a greater appreciation for life.

Traumatic and distressing events can be accompanied by a positive reaction and excellence or a negative reaction, such as guilt and shame (7). Emotions, like shame and guilt, are self-conscious emotions triggered by self-evaluation. They lead to appropriate responses by providing feedback on a person's thoughts and behaviors based on ethical and social standards (8). Studies have indicated that shame, anger, social isolation, and depression play critical roles in persistent post-traumatic stress disorder symptoms (9). Additionally, people who experience more traumas and diseases suffer more from shame than fear (10). In people with post-traumatic stress disorder, shame is the primary response to painful experiences (11), and the levels of shame and guilt are associated with post-traumatic stress disorder. Moreover, a study has shown that the more the PTG, the less the direct effects of post-traumatic stress disorder on shame and guilt (12).

One of the factors affecting how people react to traumatic events is self-compassion. Self-compassion is the ability to link pain and suffering to loving-kindness (13). It has three components: self-kindness and self-perception without judgment, recognizing that failure is a part of the shared human experience, and being aware of the present moment (13). Self-compassion is associated with emotional intelligence, wisdom, curiosity, mental flexibility, life satisfaction, and social attachment (14). As an emotion regulation strategy, self-compassion is an adaptive response to disease (15). Processing emotions in a self-compassion way reduces negative affection. The acceptance-centered approach of people with high levels of self-compassion prevents them from reacting defensively and ruminatively in the confrontation with their undesirable aspects (16). Ebrahiminejad et al. (17) and Mahmoudpour et al. (18) suggest that people with high self-compassion have better mental health, and higher levels of self-compassion are related to lower levels of depression and anxiety, better ability to reconstruct negative emotions, and more positive emotional coping skills.

Furthermore, self-compassion is a shock absorber against acute stressful factors. In a study, Wong and Yeung (19) found a direct and significant relationship between positive self-compassion and PTG and a diverse and significant relationship between negative self-compassion and PTG. Moreover, similar studies have shown that psychological flexibility and self-compassion have diverse and significant correlations with depression, anxiety, and stress (20), post-traumatic stress (21), and the subscales of emotional traumas, such as depression, anxiety, and stress (22).

Reviewing the literature revealed that shame and guilt were correlated with the symptoms of depression and anxiety, indicating the importance of self-compassion in mental health and the development of positive emotions. Little research has been done on PTG and its predictors in Iran. On the other hand, some research has focused on samples of different chronic patients. However, MS is a chronic and life-threatening disease that can be detrimental to a significant number of patients; so, the majority of patients report clinical levels of chaos, including post-traumatic stress disorder, depression, and anxiety (23).

On the other hand, the prevalence of this disease has increased in Iran, as in other countries, while no studies have been conducted in Iran to examine the roles of guilt, shame, and self-compassion in predicting PTG among MS patients.

2. Objective

This study aimed to investigate the relationship of shame, guilt, and self-compassion with PTG. Also, the study tried to predict PTG based on shame, guilt, and self-compassion in MS patients.

3. Methods

3.1. Study Design and Participants

In this descriptive correlational study, the statistical population consisted of MS patients who were members of the MS Association in Zahedan and Mashhad. The research sample consisted of 46 MS patients selected by a convenience sampling method for six months from July to December 2018. Inclusion criteria included an MS diagnosis by a neurologist and the ability to read and write. Exclusion criteria were mental disorders, cognitive disorders, a history of substance abuse, and other neurological disorders.

3.2. Ethical Considerations

The Ethics Committee of the University of Sistan and Baluchestan, Zahedan, Iran, approved the study (IR.USB.REC.1399.010). We explained the main objectives of the study to the participants, obtained the participants' informed consent to take part in the study, gave them the freedom of choice to withdraw from the study at any stage they desired, and ensured them of the confidentiality of data and the anonymity of questionnaires.

3.3. Instruments

3.3.1. Post-traumatic Growth Inventory

Tedeschi and Calhoun designed this inventory in 1996 to measure the positive outcomes resulting from a negative life event. It contains 21 items scored based on a Likert-type Scale, ranging from zero to five. A preliminary Post-traumatic Growth Inventory (PTGI) evaluation on a sample of university students showed that this inventory had a desirable internal consistency of 0.90. In another study, the reliability coefficient of this inventory with a one-week interval was 0.94, and its Cronbach's alpha coefficient was 0.92 (24). A similar study demonstrated that its Cronbach's alpha coefficient was 0.98 (3). Lelorain et al. (25) reported that its Cronbach's alpha coefficient was 0.93. Also, an Iranian study reported its reliability as 0.92 by Cronbach's alpha and 0.94 by test-retest on 46 subjects (26). In the present study, Cronbach's alpha coefficient of this inventory was 0.78.

Moreover, using Cronbach's alpha, the internal consistency of its subscales ranged from 0.67 to 0.85. Based on Tedeschi et al. (27), PTGI had structural validity such that people who experienced a traumatic event obtained higher scores on PTGI than those who did not.

3.3.2. State of Shame and Guilt Scale

Marschall et al. (28) developed this scale. It has 15 items and three subscales. Each item is scored based on a five-point Likert-type scale, ranging from one (I don't feel this at all) to five (I strongly feel this). Cronbach's alpha coefficients of its subscales were 0.85, 0.87, and 0.87 (28). Rajabi and Bohlol (29) reported that in a student population, its Cronbach's alpha coefficient was 0.84, and in the study of Naderi et al. (30), it was 0.85. In this study, Cronbach's alpha coefficients of the three subscales were 0.75, 0.78, and 0.70.

3.3.3. Self-compassion Scale-Short Form

This scale includes 26 items designed to measure six subscales. The items are rated on a five-point Likert-type Scale, ranging from one (rarely) to five (always). A higher score indicates a higher level of self-compassion (31). In Iran, a study showed that its Cronbach's alpha coefficient for the overall score was 0.91 (32). Also, its criterion validity with the Mental Health Inventory was -0.45, which is desirable.

In the present study, Cronbach's alpha coefficient for the overall scale was 0.65. Cronbach's alpha coefficients of the self-compassion subscales were 0.73, 0.74, 0.76, 0.73, 0.75, and 0.74 for self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identified, respectively.

We used descriptive and inferential statistics for data analysis. Pearson correlation coefficient was used because of normal assumption and interval scale of data. Also, regression analysis was used to predict a criterion variable through two independent variables, as the study purpose (33). We employed SPSS version 23 to analyze the data.

4. Results

The demographic characteristics (Table 1) showed that 13% of the participants were 16 - 26-years-old, 43.5% were 27 - 37 -years-old, 26.1% were 38 - 48 -years-old, and 17.4% were 49 - 59 -years-old. Furthermore, 17.4% of the subjects were male, and 82.6% were female. Concerning education, 13% of the respondents had a middle school diploma, 34.8% had a high school diploma, 13% had an associate degree, and 39.1% had a bachelor's degree or higher. Moreover, 23.9% of the subjects were single, and 76.1% were married. Considering the disease history, 10.9% of the participants had MS for less than a year, 28.3% for 1 - 5 years, 26.1% for 5 - 10 years, 15.2% for 10 - 15 years, and 19.6% for more than 15 years.

The assumption of data normality is presented in Table 2 by the Kolmogorov-Smirnov test.

Table 1. Demographic Characteristics [a]

Variables	No. (%)
Age	
≤ 26	6 (13)
37 - 27	20 (43.5)
38 - 48	12 (26.1)
≥ 60	8 (17.4)
Gender	
Male	8 (17.4)
Female	38 (82.6)
Education level	
Guidance school	6 (13)
Diploma	16 (34.8)
Under graduated	6 (13)
Graduated or upper	18 (39.1)
Marriage	
Single	11 (23.9)
Married	35 (76.1)
Without children	11 (23.9)
0 - 2	39 (60.9)
3 - 5	7 (15.2)
Disease history (y)	
< 1	5 (13)
1 - 5	13 (43.5)
5 - 10	12 (26.1)
10 - 15	7 (17.4)
> 15	9 (17.4)

[a] Values are expressed as No. (%).

Table 2. Results of Kolmogorov-Smirnov Test for Variables

Variables	P	(K-S)
Shame	0.07	0.10
Guilt	0.2	0.11
Self-compassion	0.20	0.08
Overall score of shame and guilt	0.20	0.14
PTG	0.18	0.11

In all variables, the p-value was more than 0.05. Therefore, the data had a normal distribution, and Pearson Correlation and regression analysis could be used.

Table 3 shows that the mean scores of shame, guilt, and self-compassion, the overall score of shame and guilt, and the score of PTG were higher than the mean scores of the test values.

Table 3. Means, Standard Deviations, and Correlation Coefficients of Variables

Variables	M of Test Value	Mean ± SD
Shame	12.5	19.13 ± 4.009
Guilt	12.5	19.33 ± 3.96
Self-compassion	65	77.35 ± 11.99
Overall score of shame and guilt	37.5	52 ± 6.39
PTG	52.5	90 ± 13.23

As Table 4 indicates, the shame score (r = -0.48, $P \leq 0.01$), guilt score (r = -0.44, $P \leq 0.01$), and shame and guilt overall score (r = -0.49, $P \leq 0.01$) had significant and diverse relationships with PTG. Also, the self-compassion score (r = 0.32, $P \leq 0.01$) had a significant and direct relationship with PTG.

As Table 5 shows, the shame and guilt overall score, when entered the equation in the first step, could explain 0.22% of the PTG variance. Thus, they were direct and significant predictors of post-traumatic growth (Beta = -0.49, $P \leq 0.001$).

5. Discussion

The results showed that shame and guilt negatively correlated with PTG, and self-compassion had a positive relationship with PTG. Moreover, the regression results indicated that shame and guilt together could determine 0.22 of the PTG variance.

These findings are consistent with some of the results of Taylor (9), Caspi et al. (10), Badour et al. (11), McKinney et al. (12), Marshall and Brockman (22), Wong and Yeung (19), Masuda and Tully (21), Zakeri et al. (15), Barzgardaheg et al. (16), Ebrahiminejad et al. (17), Mahmoudpour et al. (18), and Sadeghi et al. (20) who found that shame and guilt could be responses to stressful experiences, and people who expressed their feelings of shame and guilt were likely to experience post-traumatic stress disorder. They are also similar to research proving that optimism, positive and negative affection, and life orientation had relationships with PTG. Also, it was demonstrated that self-compassion was related to the psychological growth dimensions, such as emotional intelligence, mental flexibility, reduction of negative affect, and mood regeneration of negative emotions. It has also been found that self-compassion is a strong predictor of mental health. Self-compassion is negatively associated with self-criticism, depression, anxiety, and negative perfectionism. It is positively linked with life satisfaction and social interaction. People with high self-compassion are less likely to experience depressive symptoms, especially rumination.

Shame and guilt are negative emotions resulting from the internal attribution process. These self-conscious emotions are evoked by self-assessment. When a situation is considered threatening, a person dissatisfies and regards himself/herself as unworthy, and the feeling of shame will be perceived. The feeling of guilt appears by focusing on regretting one's wrongdoings. The feeling of shame stems from an understanding of the conflict between the real self and society's standards.

On the other hand, many people try to focus on themselves when sick. If the focus on the inside is accompanied by paying attention to negative and painful thoughts and feelings, the person will not be able to accept the experiences in a real way, and he/she may be involved in a self-hatred reaction intertwined with shame and guilt, which manifests itself in the form of rumination. This is followed by many injuries, such as poor problem-solving, low motivation, effective behavior inhibition, and disturbances in concentration and cognition. Thus, shame and guilt become a cognitive mechanism that links stressful life events to the symptoms of depression and anxiety. On the other hand, if the search for an effective solution accompanies the patient's efforts to reassess the situation, it will develop positive emotions and PTG. Research has shown that PTG is associated with changes in three areas, i.e., self-perception, interpersonal relationships, and the philosophy of life, which also lead to changes in the feelings of inner strength, changes in priorities, and increased trust in others.

If people behave compassionately in the face of problems and failures, they perceive the situation without criticizing themselves. Self-compassion requires a balanced approach to negative experiences so that negative feelings and thoughts are not suppressed and exaggerated. Self-compassion is a potential protective factor that promotes flexibility and effective coping styles. Self-compassion leads to more balanced emotional reactions to negative events, ultimately reducing negative emotions, such as sadness and anxiety.

5.1. Study Limitations

The present study utilized a non-probability sample from a few centers, used self-report questionnaires, and ignored the role of demographic, cultural, and social factors.

It is suggested that similar research be conducted on a larger sample to examine the role of demographic variables. Additionally, it is proposed to study the factors altering PTG in longitudinal studies to determine the changes that might be due to the growth process. Also, it is suggested that the relationship between disease duration and PTG be examined.

Table 4. Correlation Coefficients of Variables

Variables	PTG	Shame	Guilt	Overall Score of Shame and Guilt	Self-compassion
PTG	1	-0.48	-0.44	-0.49	0.32
Shame	-0.48	1	0.86	-0.96	0.81
Guilt	-0.44	0.86	1	-0.94	0.84
Overall score of shame and guilt	-0.49	-0.96	-0.94	1	0.83
Self-compassion	0.32	0.81	0.84	0.83	1

Table 5. Stepwise Regression for Predicting Post-traumatic Growth by Self-compassion Subscales

Predictor Variable	Correlation	Correlation Coefficient	Adjusted R^2	Beta	T	Sig.	Df	F	Sig.
Overall score of shame and guilt	0.49	0.24	0.22	-0.49	3.71	0.001	1.43	13.76	0.001

5.2. Conclusions

The study provided worthy knowledge on PTG, shame, guilt, and self-compassion, as coping skills contributing to mental health. Besides, due to the importance of the role of shame, guilt, and self-compassion in PTG, providing educational classes, workshops, and posters for emotion management, self-compassion, and PTG is highly recommended for patients. However, more studies are required to prove these correlations.

Footnotes

Authors' Contribution: All authors equally participated in the manuscript's design, implementation, drafting, and revision.

Conflict of Interests: The authors declared no conflict of interest.

Ethical Approval: The Ethics Committee of the University of Sistan and Baluchestan, Zahedan, Iran, approved the study (IR.USB.REC.1399.010) (ethics.research.ac.ir/ProposalCertificateEn.php?id=137415).

Funding/Support: This study was derived from a master thesis in General Psychology approved by the University of Sistan and Baluchestan. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Informed Consent: Participants' informed consent was obtained to take part in the study.

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