

# Comparison of emotion regulation dimensions and attachment styles between people with somatization disorder and normal individuals

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## Original Article

### Abstract

**Introduction:** Several studies have shown the relationship between emotion regulation and different mental disorders, so that difficulty in emotion regulation, as a key component, has been proposed in several psychopathology models of different mental disorders. On the other hand, high scores in insecure attachment styles are correlated to a variety of psychological problems and disorders. Given limited research in the field of these two variables in somatization patients, the present study investigated these variables in patients with somatization and normal people.

**Methods:** In the context of a causal-comparative study, 30 patients with somatization disorder and 30 normal persons responded to Emotion Regulation Questionnaire (ERQ) and Hazan and Shaver attachment styles questionnaire. The data were analyzed using independent t-test.

**Results:** The results indicated a significant difference between patients with somatization disorder and normal individuals in terms of emotion regulation (reappraisal:  $P=0.007$ ; suppression:  $P<0.001$ ). Various dimensions of attachment styles had significant differences in the two study groups (secure attachment style:  $P<0.001$ ; avoidant attachment style:  $P<0.001$ ; ambivalent attachment style:  $P<0.001$ ).

**Conclusion:** Somatizing patients suppress their emotions more than normal people and use less reappraisal. They also have more avoidant and ambivalent attachment styles than secure attachment style.

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### Introduction:

Somatization disorder refers to a range of physical signs and symptoms which cannot be explained medically. This disorder involves interactions in which the brain sends several warnings in a way still unknown. These warnings

induce serious physical problems in individual's consciousness. In addition, minor or yet unknown changes in neurochemistry and neurophysiology may arise from unknown mental or cerebral mechanisms that cause the disease. Somatization has been reported as a chronic disorder with the onset age of usually before 30 years and a

relationship with long-term psychosocial impairments (1).

Emotion regulation is one of the factors that can affect somatization disorders, but not addressed much so far (2). While many different definitions exist for emotion regulation, different theories agree that regulation of emotions requires management of both positive and negative emotions in selves and in others based on current conditions (3,4). Emotion regulation is defined as the process of beginning, maintaining, and adjusting or changing the occurrence, severity, or persistence of an internal feeling and emotion associated with socio-psychological, physical processes to accomplish individuals' goals (5).

Numerous studies have shown a link between emotion regulation and various mental disorders, so that difficulty in emotion regulation is suggested as a key component in several psychopathological models for certain disorders, such as borderline personality disorder, major depressive disorder, bipolar disorder, generalized anxiety disorder, social anxiety disorder, eating disorders, and alcohol and drug abuse related disorders (6). In the study of Aldao et al. (2010), some cognitive emotion regulation strategies were more associated with psychological damages than some other cognitive emotion regulation strategies.

Evaluation of these results showed that maladaptive strategies such as rumination, avoidance, and suppressed emotions which were associated with higher levels of depression, anxiety, substance abuse, and eating pathology, and the use of adaptive strategies such as reception, reevaluation, and problem solving, were associated with lower levels of damage. However, unlike adaptive cognitive emotion regulation strategies, maladaptive cognitive emotion regulation strategies have a stronger relationship with psychopathology.

According to theoretical models, efficient cognitive emotion regulation is associated with good health outcomes, effective communication, and better educational and occupational performance. In contrast, cognitive emotion regulation problems are associated with mental and personality disorders, such as borderline personality disorder (7), major depressive disorder (8), bipolar disorder (19), generalized anxiety disorder (10), alcohol abuse

related disorders, eating disorders (11), and substance abuse related disorders (12).

Attachment style has also a significant relationship with somatic symptoms reported in somatization disorder (13). Characteristics of normal and abnormal interpersonal relationships are deeply affected by individuals' attachment. Attachment styles are divided into three types of secure, ambivalent insecure, and avoidant insecure. According to research results, secure attachment is associated with positive communication features such as intimacy and satisfaction and avoidant attachment with lower levels of intimacy and commitment (14). Ambivalent attachment in children is related to a variety of somatization and psychosomatic disorders including asthma and allergy (15). The results of studies show that somatizing people acquire many of the signs and symptoms through parental modeling. In addition, high anxiety in childhood is associated with somatization in adulthood (16).

## Methods:

In this causal-comparative study, the statistical population consisted of patients with somatization disorder referred to public and private treatment centers in Tehran as well as normal people of Tehran in 2011. The study sample consisted of 70 patients, of whom 10 patients (5 patients in each group) were considered to compensate the missed subjects or the invalid questionnaires in order to finally select 60 subjects (30 patients with somatization disorder and 30 normal subjects). The subjects were selected through the purposive sampling method based on available samples, and the groups were matched based on age, gender, and education. To select the samples and to implement the research questionnaire, the researcher attended in hospitals and different centers of psychiatry and psychology in Tehran, and the psychosomatic department of Imam Khomeini Hospital agreed for cooperation. When a person was diagnosed with somatization disorder according to the Structured Clinical Interview for axis I Disorders (SCID-I) performed by psychiatrist, the study objectives were explained to him/her and in case of consent, the questionnaire was provided to him/her.

Normal individuals were selected from the companions or relatives of patients and they received the General Health Questionnaire (GHQ28) in addition to the emotion regulation and attachment styles questionnaires. In case of absence of mental disorder, the data in their questionnaires were used as the normal group.

The criteria for inclusion of patients in the study were diagnostic criteria for somatization disorder diagnosed by a psychiatrist or a clinical psychologist based on the results of SCID-I/CV, being older than 18 years and younger than 60 years, and consent to participate in the study. Exclusion criteria were psychotic symptoms, substance abuse, and criteria for other psychological disorder in axis I, and severe physical illnesses, such as cancer.

The following tools were used for data collection:

Emotion Regulation Questionnaire (ERQ) which determines the emotional regulation variables was designed by Gross and John (17) to measure emotion regulation strategies. The questionnaire consists of two sub-components of reappraisal and suppression of emotion. The questionnaire is scored based on the Likert scale and has 6 items for reappraisal and 4 item for repression. Reliability of the Iranian version was obtained 0.80 by Issa Zadegan and Sheikhi using Cronbach's alpha (18). Its validity was analyzed through analysis of correlation of each item's scores with the score of each scale. The correlation of each item with the total score of the scale was calculated 0.51-0.68, and all coefficients were significant at the level of 0.0001 (19).

Hazan and Shaver attachment styles questionnaire is used to measure attachment style and is standardized by Pakdaman in Iranian society. It consists of two parts: in the first part, three paragraphs were descriptively described on a 7-point Likert scale, and in the second part, the same descriptions were stated again except that the participants should mark only one of them which is more similar to them. Based on a survey, the time to fulfill the questionnaire was 10 minutes. In Iran, the reliability of emotional secure, avoidant, and ambivalent styles was reported 48%, 58%, and 65%, respectively. In general, Cronbach's alpha for reliability of the standardized Hazan and Shaver

questionnaire in Iran was 78% which is high and acceptable (18).

28 Items General Health Questionnaire (GHQ-28) is constructed by Goldberg in 1972 for screening people with mental disorders. The General Health Questionnaire identifies discomfort with duration of less than two weeks and is sensitive to transient conditions which may heal without treatment. The 28-item version of this questionnaire was used in the present study. High and low scores in this test demonstrates the presence of illness and absence of illness or general health, respectively (20). However, in this study a high score indicated general health and a low score indicated the disease. The questionnaire is scored based on the Likert scale which specifies scores 0-3 for each of quadruple scales (21). Sensitivity and specificity of the questionnaire were obtained 84.7 and 93.7, respectively, in the study of Noorbala, Bagheri Yazdi, and Mohammad (22).

## Results:

Statistical analysis using SPSS 17 through Student's t-test was performed at a significance level of 0.05. The frequency of males was 13 in normal subjects ( $P=43.33$ ) and 9 in somatizing patients ( $P=30$ ). The frequency of females was 17 in normal subjects ( $P=56.67$ ) and 21 in somatizing patients ( $P=70$ ).

Student's t-test showed that normal people had a significant difference with patients with somatization in terms of reappraisal dimension, and the mean score of reappraisal dimension was higher in normal people than the somatizing patients ( $t=2.799$ ). In terms of suppression dimension, normal people had a significant difference with patients with somatization and the mean score of suppression dimension was higher in the somatizing patients than normal people ( $t=5.716$ ). Regarding secure attachment style, normal subjects had a significant difference with patients with somatization and the mean score of secure attachment style was higher in normal people than the somatizing patients ( $t=5.206$ ). In terms of avoidant attachment style, normal people had a significant difference with patients with somatization and the mean score of avoidant attachment style was higher in the somatizing

patients than normal people ( $t=4.389$ ). In the ambivalent attachment style, normal subjects had a significant difference with patients with

somatization and the mean score of ambivalent attachment style was higher in the somatizing patients than normal people ( $t=3.719$ ).

**Table 1. Assessing difference between two groups in dimensions of emotion regulation and attachment styles using Student's t-test**

| Variable                    | Group               | Mean  | SD   | t     | Sig    |
|-----------------------------|---------------------|-------|------|-------|--------|
| Reappraisal                 | Normal people       | 26.87 | 4.66 | 2.799 | 0.007  |
|                             | Somatizing patients | 22.27 | 7.70 |       |        |
| Suppression                 | Normal people       | 12.93 | 4.35 | 5.716 | 0.0001 |
|                             | Somatizing patients | 18.63 | 3.30 |       |        |
| Secure attachment style     | Normal people       | 12.90 | 2.25 | 5.206 | 0.0001 |
|                             | Somatizing patients | 8.80  | 3.68 |       |        |
| Avoidant attachment style   | Normal people       | 8.30  | 3.23 | 4.389 | 0.0001 |
|                             | Somatizing patients | 12.67 | 4.32 |       |        |
| Ambivalent attachment style | Normal people       | 8.43  | 3.82 | 3.719 | 0.0001 |
|                             | Somatizing patients | 12.13 | 3.88 |       |        |

## Conclusion:

The results of this study showed that somatizing patients suppress their emotions and use less reappraisal more than normal people. They have also avoidant and ambivalent attachment styles, rather than secure attachment style. These findings are consistent with those of Compare, Manzoni, and Molinari (23), Denollet, Gidron, Vrints, and Conraads (24), and Perbandt, Hodapp, Wendt, and Jordan (25). Somatizing people experience more problems in processing cognitive and verbal expression of their emotions, because they have higher levels of repression of emotional regulation. These people tend to focus on somatic components of their emotional arousal and strengthen and misinterpret their physical feelings (26). On the other hand, higher scores of normal people than somatizing patients enable them to experience less stress and thus suffer fewer somatic symptoms, through positive viewing of surrounding events, and thinking about the positive aspects of an event, and that these events can make them stronger (27).

People with ambivalent and avoidant attachment styles are more likely to become dependent on others which may extend to health care providers, because they had more somatic symptoms and unstable relationships with their care-givers at childhood, while this dependence is lower in

normal people than patients with somatization. People with ambivalent and avoidant attachment styles increase their negative emotions by emphasizing the stressful experience and in contrast to people with secure attachment styles, they have deeper negative emotions (28). High anxiety and maintaining a vigilance status, which results from the inability to recognize threatening and safe situations as well as the inability to reduce emotional distress, provide conditions for continued and increased symptoms of stress and somatic pain through effective strategies, which leads to higher scores of avoidant and ambivalent attachment in somatizing patients than normal people (29). Higher scores of avoidant and ambivalent attachment styles in patients with somatization result in a self-deceptive, depressive, and negative approach to life in these patients. Such attributes make them to not seek a treatment and the physician-patient relationship is not formed properly. Therefore, they have a feeling of abuse, and inexplicability of physical symptoms worsens the situation. On the other hand, the patients suppress their emotions, are unable to re-evaluate their emotions, and have less introspection.

The findings suggest that treatment of patients with somatization is difficult, because they do not trust health professionals and are apt to seek medical help for their psychological problems (30).

Higher scores of insecure attachment (avoidant and ambivalent) and emotional suppression, and inability to reevaluate emotions can lead to more anxiety and stress in somatizing patients than normal people (31). Mai (32) believes that a relationship exists between functional somatization and high levels of 24-hour cortisol and systolic blood pressure. In line with these results, Grossman (33) showed that high levels of anxiety can lead to changes in central nervous system. Therefore visceral perception changes which results in unpleasant or painful perception. In support of the neurological mechanisms of somatization, research suggests lower levels of serotonin neurotransmitter in patients with somatization disorder (34).

The findings of this study suggest that training of emotion regulation and creation and facilitation of conditions that lead to secure attachment will be effective in preventing and reducing somatization symptoms.

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