

Self-Esteem Evaluation In Somatic Symptom Disorder

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DOI: 10.47750/pnr.2022.13.S09.465

Abstract

Introduction: Anxiety disorders, one of the most common mental disorders, have been known to significantly impair different aspects of an affected person's life, including their self-esteem, self-image, and self-concept. Previous studies have shown a link between somatic symptom disorder (SSD) and higher anxiety levels. The aim of this study was to assess the self-esteem and self-concept of somatic symptom disorder patients in comorbid with anxiety disorders.

Materials and Methods: This cross-sectional study was conducted on 86 anxiety disorder patients who after a thorough clinical examination and psychiatric interview, were divided into two groups: 43 patients who also suffered from somatic symptom disorder, and 43 people without somatic symptom disorder. The self-esteem, self-concept, and anxiety level of the participants were assessed using the Coopersmith Self-Esteem Inventory, the Beck Self-Concept Test, and the Hamilton Anxiety rating Scale. Data were analyzed using SPSS 26 software. In all of the tests, 0.05 was considered as the cut off for significance.

Results: The findings showed a significantly lower self-esteem level in the somatic symptom disorder group compared to those not suffering from this disorder. In addition, somatic symptom disorder patients were suffering from significantly higher levels of anxiety compared to the group without SSD. However, no significant difference was observed between the two groups in terms of self-concept.

Conclusion: These results suggest that somatic symptom disorder, can negatively impact the affected individual's self-esteem and body image which might further contribute to their emotional burden and suffering. The proper assessment and treatment of low self-esteem in these persons could be useful and help prevent other negative outcomes.

Keywords: Self-Esteem, Self-Concept, Somatic Symptom Disorder, Anxiety Disorders, Anxiety

Introduction

Self-Esteem generally refers to a person's "sense of self" and has been defined as an individual's subjective evaluation of their worth. It encompasses emotions such as shame and triumph as well as a person's beliefs about them. It is formed by life experiences and interactions with others and often determines outcomes such as achievements, openness to risks or new experiences, happiness, and behavior (1). People with high self-esteem are more likely to face situations with optimism, confidence, and benevolence. A person with low self-esteem however may exhibit signs of exaggerated self-criticism, pathological perfectionism, pessimism and neurotic guilt (2).

Self-concept is a general term that refers to a person's beliefs and perception of who they are. It influences a person's attitudes, behaviors, and motivations and develops through interactions with others. (3). Self-concept has been regarded as the answer to the question; "Who am I?" (4). It is different from self-esteem in that self-concept is descriptive and cognitive, whereas self-esteem has a more opinionated and evaluative nature (5). There are three main components to self-concept: self-image, self-worth, and the ideal self (6).

Anxiety disorders are a group of mental illnesses that are characterized by an overwhelming and uncontrollable feeling of anxiety that can cause significant impairment in the affected person's social, occupational, and personal function. They are thought to be the most common mental disorders (7). Anxiety can cause both physical and psychological symptoms including irritability, restlessness, chest pain, dyspnea, abdominal pain, excessive sweating, and fatigue (8).

Somatic symptom disorder (SSD), formerly called somatoform disorder, is a mental illness that presents with physical symptoms such as weakness, shortness of breath, pain, and fatigue (9). It can cause significant emotional distress and dysfunction in the affected person's life which may lead to an increase in the cost of unnecessary and recurrent visits to a physician's office. Its prevalence in the general population has been estimated to be around 5-7% (10).

Persons affected by SSD are more likely to refer to a primary care physician or surgeon rather than a psychiatrist or psychotherapist and may have difficulty accepting their diagnosis (11). This disorder has also been commonly misdiagnosed or underdiagnosed by healthcare professionals which has led to unnecessary costs and hospitalizations. Proper and timely diagnosis and treatment of somatic symptom disorder can remarkably improve the patient's symptoms as well as prevent long-term physical or psychological consequences (12).

Previous studies have reported lower self-esteem and self-concept among individuals suffering from SSD (13). It is generally thought that somatic symptom disorder patients' body image is notably impaired and that they are more likely to suffer from other co-existing mental illnesses such as major depressive disorder (14). In general, SSD patients have a lower threshold and tolerance ability for stress (15). Previous research has shown a correlation between low self-esteem and somatic symptom disorder (16). In addition, studies have suggested people with high self-esteem have lower anxiety levels compared to those with low self-esteem (17). Low self-esteem can lead to a strengthening of negative thoughts and weaken a person's strength and desire for fighting these thoughts. This can further contribute to higher anxiety levels in these individuals (18).

Considering the chronic nature of somatic symptom disorder and the harmful impacts it can have on the affected person's sense of self and self-concept, the aim of this study was to assess self-esteem and self-concept in individuals suffering from anxiety disorders in comparison to those also affected by SSD. We also took into consideration factors like body mass index (BMI), age, and length of illness to investigate whether any correlations exist between these factors and self-concept or self-esteem.

Materials and Methods

This cross-sectional study was conducted on 86 anxiety disorder patients who referred to Ibn-Sina Psychiatry Hospital, 22 Bahman Hospital's Psychiatry Clinic, and Imam Reza Hospital's psychosomatic ward in Mashhad, Iran between June 2020 and March 2021.

According to a similar study (19), considering $\alpha=0.05$ and $\beta=0.1$; the sample size was estimated to be around 52. The sample was chosen through convenience sampling method. The participants were diagnosed with anxiety disorder through history taking and clinical interviews according to "The Diagnostic and Statistical Manual of Mental Health Disorders V" (DSM-V) criteria. After another interview conducted by a psychiatrist, the sample was divided into two groups: participants who also suffered from somatic symptom disorder, and participants who did not have somatic symptom disorder. The Hamilton Anxiety Rating Scale (HAM-A) was used to determine the severity of anxiety among the participants. The sample also completed the Coopersmith Self-Esteem Inventory (CSEI) and the Beck Self-Concept Test. The questionnaires/inventories were collected and data were analyzed using SPSS v.26 software.

The Coopersmith Self-Esteem Inventory (CSEI) was originally designed to measure the self-esteem of school-age children. It was later modified by Ryden to be applied to adults as well. This 58-item inventory requires the participant to choose “like me” or “not like me” in response to each item. It reports subscores in 5 areas: “general self, social self-peers, lie scale, home-parents, and school-academic”. The “general self” subscore consist of 26 items whereas the other subscores consist of 8 items each. If the participant answers positively to at least 4 questions out of the 8 questions designed for the “lie scale”, the results may not be as reliable. These 8 questions are randomly distributed among the other questions and are not calculated towards the total score. The rest of the 50 items may receive a score of 0 or 1 each. Therefore, the total score obtained from this inventory will be reported as a number between 0 and 50. A total score of 0-26, 27-43, and 44-50 demonstrate low, medium, and high levels of self-esteem respectively (20). The validity and reliability of this inventory has been confirmed for the Iranian population (21).

The Beck Self-Concept Test (BSCT) is a self-report questionnaire consisting of 25 items which require the test-taker to evaluate themselves in comparison to other people they know. Each question requires the participant to choose one of 5 responses. A score of 1-5 is given to each item. A total score of 25 to 125 will be obtained from this test. A total score range of 25-71, 72-81, 82-91, 92-101, and 102-125 indicate very weak, weak, medium, strong, and very strong self-concept (22). This test has been proven to be valid and reliable for the Iranian population (23).

Hamilton’s Anxiety Rating Scale is a widely used scale developed to measure the severity of anxiety in an individual by a clinician. Different symptoms of anxiety are assessed using 14 items. Each item can lead to a score of 0 to 4 (0 showing the least and 4 demonstrating the most severe level). The total score is calculated by summing up the scores attained in every question and can range from 0 to 56. A total score of 0-17, 18-24, 25-30 and 30-56 demonstrate normal, mild, medium and severe levels of anxiety respectively (24). This scale has proven to be valid and reliable for the Iranian population (25).

Exclusion criteria for the study were as follows: drug dependence, pregnancy, mental or physical disability, age>50 or age<20, a psychiatric disorder other than anxiety disorder, underlying physical illness (such as a malignancy, hypertension, and diabetes mellitus). The process of the research project was fully explained to the patients and informed oral and written consent was obtained from them. It should also be noted that the participants had the right to exit the project at any time they desired.

Data were analyzed by SPSS v26 software using statistical tests including Shapiro-Wilk, chi-square, Mann-Whitney, Kruskal-Wallis, and t-test. In all of the tests, 0.05 was considered as the cut-off for significance.

Results

This study was conducted on 86 patients with anxiety disorder who referred to 22 Bahman Hospital’s Psychiatry Clinic, Imam Reza Hospital’s psychosomatic ward, and Ibn Sina Psychiatry Hospital in Mashhad, Iran from June 2020 to March 2021. The sample was divided into two groups: a group of 43 patients who also suffered from somatic symptom disorder, and a group of 43 patients who did not have somatic symptom disorder. Table 1 illustrates the demographical information of these two groups (See Table 1):

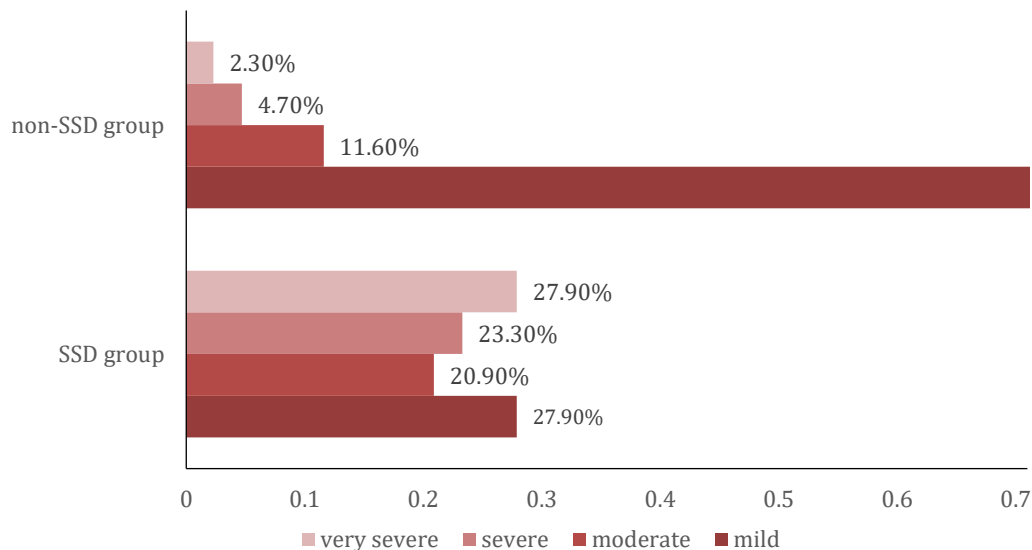
	SSD group	Non-SSD group	p-value
age	29.26±6.55 (mean±standrad deviation)	33.05±8.49 (mean±standard deviation)	0.023
Body Mass Index	22.92±3.53 (mean±standrad deviation)	24.87 ±2.97 (mean±standrad deviation)	0.007
Length of Illness	1.33±1.92 years (mean±standard deviation)	1.26±2.23 years (mean±standard deviation)	0.877

Table 1-demographical information of the participants

The participants’ age ranged from 20 to 50. A significant difference was observed between the two groups in terms of age. The group of patients with somatic symptom disorder were significantly younger than the group without somatic

symptom disorder (p-value=0.023). Body mass index was significantly higher in the group without somatic symptom disorder in comparison to the somatic symptom disorder group (p-value=0.007). No significant difference was observed among the two groups in terms of length of illness (p-value=0.877).

The severity of anxiety was significantly higher in the somatic symptom disorder patients compared to the non-SSD group (p-value=0.0001).

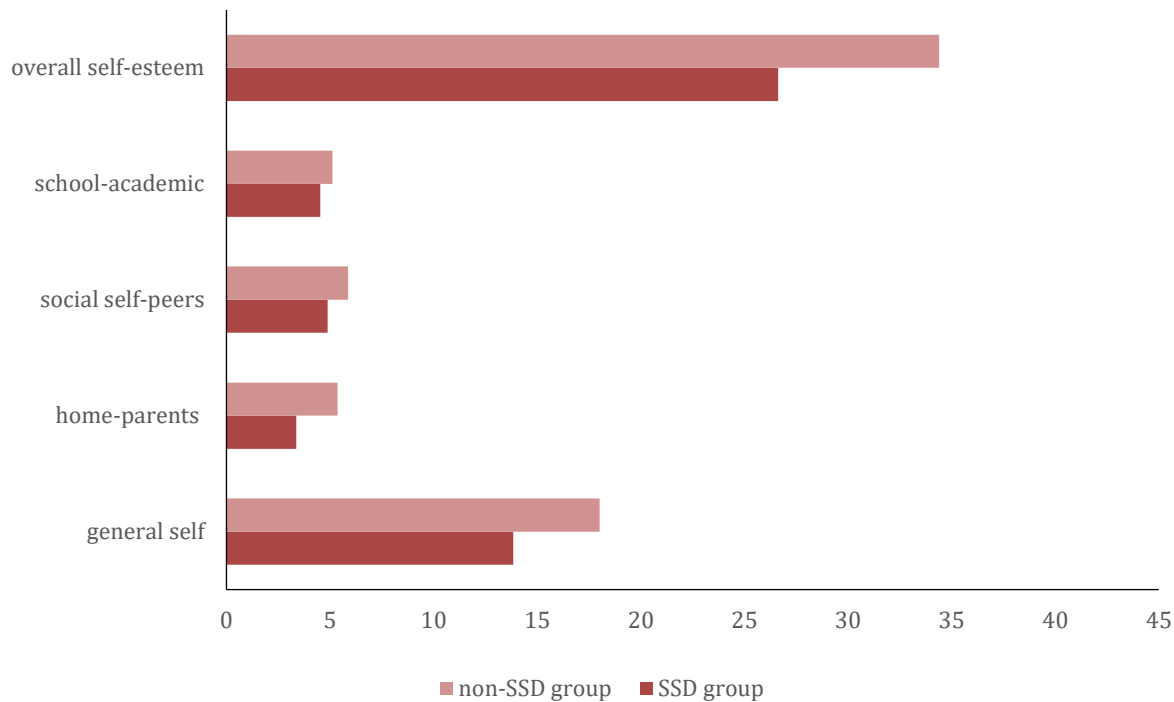


Graph1- Comparison of Anxiety between the SSD group and the non SSD group

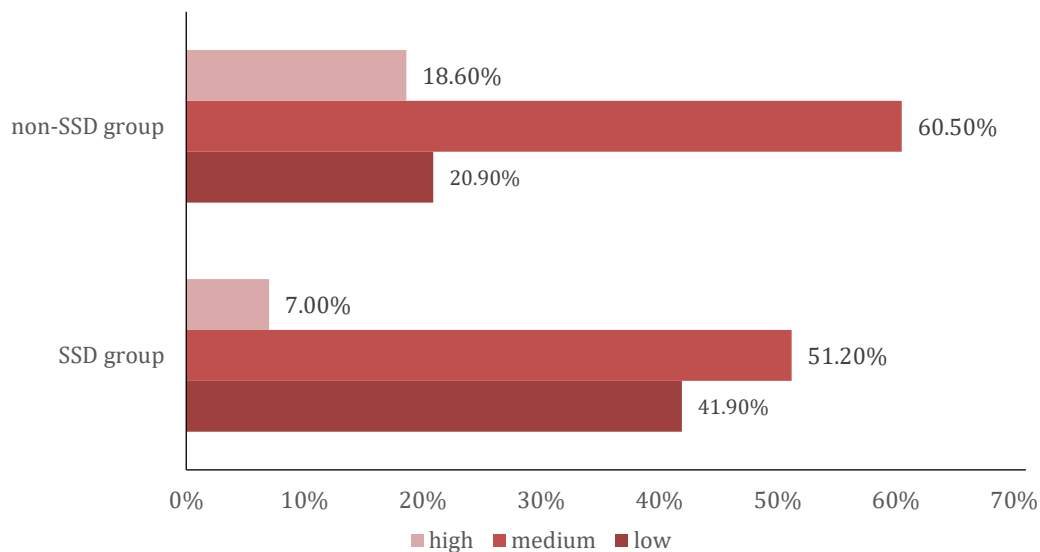
The “general self”, “home-parents” and “social self-peers” aspects of self-esteem were shown to be significantly

lower in the group with somatic symptom disorder (demonstrated by p-value measures of 0.001, 0.0001, and 0.019 respectively). The “school-academic” aspect of self-esteem however was not statistically different between the two groups (as shown by a p-value measure of 0.106).

The SSD group and the non-SSD group earned a total score of 26.63±8.80 and 34.40±8.86 on the CSEI respectively (the scores are presented in mean±standard deviation format). Overall, the somatic symptom disorder patients had significantly lower levels of self-esteem compared to the other group (p-value=0.0001).



Graph2- Comparison of Self-Esteem Scores on the CSEI between the SSD group and the non-SSD group



Graph3- Comparison of Self-Esteem Level between the SSD and the non-SSD group

Body mass index, age, and length of illness were not associated with self-esteem level (p-value>0.05

in all of the mentioned factors).

In the group of patients suffering from somatic symptom disorder, significantly lower self-esteem scores were obtained by those with severe anxiety than those with moderate or low levels of anxiety (p-value=0.007). In the non-SSD population however, self-esteem scores were not associated with the participants' anxiety levels (p-value=0.125).

No statistically significant difference was observed between the two groups in terms of self-concept (p-value>0.05).

Overall, higher anxiety levels were associated with lower self-concept scores (p-value=0.003).

Self-Concept was not associated with factors such as age, body mass index, length of illness, or anxiety level (p -value >0.05 for all the mentioned factors).

Discussion

According to the results of this study, the severity of anxiety was higher in somatic symptom disorder patients compared to the non-SSD group. Moreover, the somatic symptom disorder patients obtained significantly lower self-esteem scores in comparison to their non-SSD counterparts. In addition, somatic symptom disorder patients with higher anxiety levels received lower marks on the self-esteem inventory and lower self-concept scores were associated with more severe levels of anxiety.

Sertoz et al. conducted a similar study on 128 women, 34 of whom were diagnosed with somatoform disorders. 50 of these women had undergone total mastectomy due to breast cancer, and 44 of them were healthy subjects. The aim of their study was to investigate the relationship between self-esteem and somatization disorders. The Body Cathexis Scale and the Rosenberg Self-Esteem Scale were used to assess the sample's self-esteem and self-image. They concluded that somatizing patients who were dissatisfied with their body and appearance had lower self-esteem as well as a higher comorbidity of depression. These findings also suggest lower self-esteem and a more impaired body image in those affected by somatization disorders. (26).

A study conducted by Scheffers et al. on 657 somatoform disorder patients and 761 healthy controls also produced similar results. Using the Dresden Body Image Questionnaire (DBIQ), they assessed five aspects of body image (physical contact, sexual fulfilment, vitality, body acceptance, and self-aggrandizement) among the participants. The group diagnosed with somatic symptom disorder received significantly lower scores on all five domains of body image in comparison to their healthy counterparts. They also reported higher scores in males in comparison to female patients. The results of this study also demonstrate a more impaired body image in those affected by somatization disorder (29).

Frazier also conducted a study on the relationship between self-esteem and somatic complaints in children. A number of 69 children (33 females and 36 males) aged 8 to 12 were assessed using Guttman's ten-item self-esteem scale and an eight-item self-report somatic complaints questionnaire. Fisher's exact test showed a significant relationship between high frequency of somatic symptoms and low self-esteem. It should be noted that even though this study was conducted on a younger population with a smaller sample size, the results were similar to those of ours. This further suggests a correlation between low self-esteem and somatic disorders (30).

Another 2014 study conducted in Brazil by Fortes et al. aimed to investigate 397 female adolescents aged 12-17. In this study, the participants were assessed using the Rosenberg Self-Esteem Scale as well as the Body Shape Questionnaire (BSQ). They reported a significant difference in BSQ scores between those with high and low self-esteem and concluded that low self-esteem significantly influences body dissatisfaction. Although this study was conducted in a different age group, similar to our study, the results suggest a correlation between low self-esteem and higher body image concern, somatic symptoms, and low self-concept (32).

A 2017 study conducted in Turkey by Gurhan et al. aimed to assess the effects of self-esteem on the psychological symptoms of university students. The sample consisted of 764 university students who were assessed using the Coopersmith Self-Esteem Inventory and the Brief Symptom Inventory (BSI). They found that females had higher self-esteem scores than males and that a high educational level or economic status were associated with higher self-esteem. They concluded that there is a strong correlation between psychological symptoms and self-esteem. These results also suggest that low self-esteem may be associated with higher anxiety levels and more severe mental illnesses (31).

A study by Hunter et al. which assessed the self-esteem of 250 elderly subjects reported higher disability levels, more pain, and poor health outcomes in those with lower self-esteem levels. They found no significant relationship or correlation between self-esteem and factors such as age, income, gender, or education. They also found that those with lower self-esteem had significantly higher levels of depression, anxiety, and somatization. Similar to our study, these

results indicate a correlation between high anxiety levels and low self-esteem as well as a higher likelihood of somatization symptoms in those with low self-esteem levels (28).

A study by Biby aimed to assess the relationship between self-esteem, depression, somatization, obsessive-compulsive disorder, and body dimorphic disorder. The sample consisted of 78 females and 24 males who were also assessed for eating disorders. They found higher depressive, obsessive-compulsive, and somatization tendencies in those with lower self-esteem levels. These results also point out a higher probability of mental symptoms and illnesses in persons suffering from low self-esteem (27).

Conclusion

Overall, the findings of this study and other similar studies suggest higher anxiety levels and lower self-esteem and body image in somatic symptom disorder patients. Further studies in multiple locations with bigger sample sizes are recommended. In clinical practice, it should be advised that clinicians take into account the other psychiatric and physical comorbidities, self-esteem, quality of life, and body image of anxiety disorder patients, particularly those who also suffer from somatic symptom disorder. These results, if proven by further studies, indicate the importance and usefulness of assessing the self-concept, body image, and self-esteem of anxiety disorder patients and treating negative self-concept or low self-esteem.

Conflicts of Interest

The authors would like to declare that there are no conflicts of interest.

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