Araştırma / *Original article*

Somatization disorder and hypochondriasis: as like as two peas?

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ABSTRACT

Objective: *Although the DSM-IV has provided some criteria for differential diagnosis of Hypochondriasis and Somatization Disorder, the differences between these disorders have rarely been studied. This study aimed to compare demographic and psychometric properties between hypochondriasis and somatization disorder.* ***Methods:*** *We investigated a sample of 100 patients aged 18-65 years who had been consecutively diagnosed as having hypochondriasis or* ***s****omatization disorder via the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I). The patients completed a battery of scales to measure anxiety, depression, dissociation, and somatosensorial amplification levels.* ***Results****: The only statistically significant difference between the two groups was in terms of health anxiety. The mean Health Anxiety Inventory (HAI) score was higher in the hypochondriasis group. No differences arose between the two groups in terms of other psychometric properties.* ***Conclusions****: Our results show that except for health anxiety levels, hypochondriasis and somatization disorder are similar in terms of psychological variables. The higher health anxiety levels in the hypochondriasis group support the opinions about the necessity of new categorization in these disorders.* ***(Anatolian Journal of Psychiatry 2016; 17(3):165-173)***

Keywords*: hypochondriasis, somatization disorder, differential diagnosis, health anxiety*

Somatizasyon bozukluğu ve hipokondriyazis: Bir elmanın iki yarısı mı?

ÖZ

Amaç: *DSM-IV, hipokondriyazis ve somatizasyon bozukluğu ayırıcı tanısı için bazı ölçütler sağlamış olsa da, bu bozukluklar arasındaki farklılıklar ender çalışılmıştır. Bu çalışma hipokondriyazis ve somatizasyon bozukluğu arasındaki demografik ve psikometrik özellikleri karşılaştırmayı amaçlamaktadır.* ***Yöntem:*** *Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) aracılığı ile ardışık olarak Hipokondriyazis ve Somatizasyon Bozukluğu tanısı alan 18-65 yaşlarındaki 100 hastayı inceledik. Hastalar anksiyete, depresyon, disosiyasyon ve somatosensoryel amplifikasyonu ölçen bir ölçek bataryasını tamamladılar.* ***Results:*** *İki grup arasında istatistiksel olarak anlamlı tek farklılık sağlık anksiyetesi açısındandı. Ortalama Sağlık Anksiyetesi Ölçeği puanı hipokondriyazis grubunda yüksekti. İki grup arasında diğer psikometrik özellikler açısından farklılık yoktu.* ***Conclusion:*** *Sonuçlarımız, hipokondriyazis ve somatoform bozukluğun sağlık anksiyetesi düzeyleri dışında psikolojik değişkenler açısından benzer olduğunu göstermektedir. Hipokondriyazis grubundaki yüksek anksiyete düzeyleri, bu bozukluklarda yeni bir kategorizasyonun gerekli olduğu görüşlerini desteklemektedir.* ***(Anadolu Psikiyatri Derg 2016; 17(3):165-173)***

Anahtar sözcükler: *Hipokondriyazis, somatizasyon bozukluğu, ayırıcı tanı, sağlık anksiyetesi*

INTRODUCTION

Somatoform disorders have been defined as a group of disorders characterized by multiple

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physical symptoms or the convictions not fully explained by a general medical condition in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV).[1] Two main types of somatoform disorders are hypochondriasis (Hypo) and somatization disorder (SD). In the DSM-IV, hypochondriasis is defined as 'preoccupation with fear of having, or the idea that one has, a serious disease, based on the person's misinterpretation of bodily symptoms.' Somatization disorder, on the other hand**,** is characterized by 'a history of many medically unexplained somatic complaints before age 30 years that occur over a period of several years.' As a consequence of criteria, hypochondriac patients suffer from numerous medically unexplained symptoms, and also, medically unexplained symptoms might cause fear of disease or at least serious doubt about one's health status in somatization disorder.[2] Although the DSM-IV has provided valuable guidelines for differential diagnosis of SD and Hypo, many sources suggest considerable overlap between them. They share common clinical features such as multiple medically unexplained complaints, prominent symptoms, illness behaviour, disability, and preoccupation with health and illness.[3-9] A 2009 study found that of physicians surveyed, 52% indicated extensive overlap, and an additional 38% thought that some overlap existed across these disorders. Only, 2% of physician respondents felt that these were distinctly different disorders.[3] In primary care patients, somatization disorder was 5 times[6] to 20 times[7] more common in hypochondriasis patients compared to patients who did not have hypochondriasis. Moreover, in most articles concerning the two disorders, the same psychological factors such as health behaviour, somatosensory amplification, and depression are considered to play an important role in the etiological explanations. Treatment interventions are similar with cognitive behavior therapy (CBT) and antidepressant medications apparently the most promising therapeutic approaches,[3,4,6-8] thereby causing many researchers to propose that both disorders could be dependent on each other or could even be two aspects of the same disorder with indistinct boundaries.[3,9-12] Hence, a new diagnostic entity has been defined in the 'somatic symptom and related disorders' section of DSM-5, namely 'somatic symptom disorder,' characterized by symptoms of both SD and Hypo, since these disorders share common symptoms and cognitive distortions.[13] Conversely, some other researchers suggested that there are significant differences between the two diagnoses, and hypochondriasis might be understood as an anxiety disorder.[11,14-16] The patients with hypochondriasis are characterized by a high comorbidity with anxiety disorders and share common symptoms and underlying psychological mechanisms.[6,7,16] Noyes et al., in a review of the literature from 1990 to 2005, indicated that some different features such as co-occurence, prevalence rates, number of somatic symptoms, cognitive aspects, and perceived health are most likely to be found in SD and Hypo.[14]

Despite the prominence of uncertainty in differential diagnosis between Hypo and SD, the differences have rarely been studied. There are only a few direct comparisons of patients with hypochondriasis and somatization disorder.[4,15,16] Additional studies taking a categorical approach and comparing patients with both conditions are also needed. This study, therefore, aimed to determine whether patients with hypochondriasis can be discriminated from those with somatization disorder on the basis of demographic and psychometric properties related to somatization.

METHODS

Subjects and procedure

The study was carried out in the Somatoform Disorders Unit within the Psychiatry Department of Bezmialem Vakif University, Istanbul. We investigated a sample of 100 patients aged 18-65 years who had at least completed primary school. They were consecutively diagnosed as Hypochondriasis or Somatization Disorder at the outpatient clinic and asked to participate in a research project. They all agreed to participate in the project and gave informed consent.

After their acceptation, the patients were assessed in the Somatoform Disorders Unit. They received a thorough physical examination, and their medical charts were carefully reviewed to identify those with symptoms due to any particular known medical disease. The first evaluation and diagnostic assessment included a 1.5-hour interview performed by a senior research assistant. The diagnoses of Hypo and SD were confirmed using the Turkish version of the Structured Clinical Interview for DSM-IV Axis I Disorders, Patient Edition (SCID-I).[17] Excluded from the study were 11 subjects because of unconfirmed diagnoses, and 8 patients who had comorbidity because of the high overlap rates between somatoform disorders and other disorders. Other exclusion criteria included lifetime diagnosis of substance use disorder, significant

medical history, and suicide attempt history. The final study sample consisted of 73 patients. Following a 1-hour interview for obtaining the demographic information and administering some scales with another psychiatrist, the patients spent an additional hour to complete a battery of self-rating scales to measure different psychometric features described above.

Instruments

Demographic Information Form: Demographic information included age, gender, marital status, occupation, education level, and living arrangements.

The Beck Anxiety Inventory (BAI), assesses 21 common symptoms of clinical anxiety (e.g., sweating, fear of losing control). Respondents indicate the degree to which they had recently been bothered by each symptom during the prior week. The BAI was designed to assess anxiety symptoms independently from depression symptoms and has good reliability and validity.[18] In this study, we used the Turkish version of the BAI adapted by Ulusoy et al.[19]

The Hamilton Depression Rating Scale **(HDRS)** is a standard measure of depression.[20] In this study we used the version adapted into Turkish by Akdemir et al.[21]

The Somatosensory Amplification Scale (SSAS) is a 10-item self-report questionnaire developed by Barsky et al.[22] It asks respondents how much they are bothered by various uncomfortable visceral and somatic sensations, most of which are not the pathological symptoms of serious diseases. We used the Turkish form on which reliability and validity studies had been performed by Güleç et al.[23]

The Somatoform Dissociation Questionnaire (SDQ-20) evaluates the severity of somatoform dissociation. For each item, respondents mark on a 5-point Likert scale how frequently they experience particular somatoform dissociative symptom**s**. The final SDQ-20 score (range 20-100) is obtained by totaling the individual item scores.[24] We used the Turkish form adapted by Sar et al.[25]

The Dissociative Experiences Scale (DES) is a psychological self-assessment questionnaire that measures dissociative symptoms. Its 28 items are based mainly on experiences of people who have dissociative disorders. The scale was developed by Carlson and Putnam.[26] The validity-reliability study of this scale for Turkey was performed by Yargic et al.[27]

The Health Anxiety Inventory (HAI) was described and published by Salkovskis et al.[28] The HAI contains 18 items that assess health anxiety independently of physical health status. The month versions are used as screening instruments and ask for ratings of how the person has been over the last six months. We used the Turkish form adapted by Aydemir et al.[29]

The State-Trait Anxiety Inventory (STAI) is a scale developed by Spielberg et al.[30] and consists of two separate inventories of 20 questions which all evaluate state and trait anxiety levels. The relevance-reliability of this scale for Turkey was determined by Öner and Le Compte.[31] We used the STAI-TX-2 form that measure**s** trait anxiety or anxiety level as a personal characteristic.

Statistical analysis

The values were presented as mean±standard deviation (SD) or percentage as appropriate. The normal distribution of variables was tested by the Kolmogorov-Smirnov test. Intergroup comparisons were made by Student's t-test. To test correlations, bivariate Pearson correlation analysis was used. All statistics were reported in two-tailed form. A p-value lower than 0.05 was accepted as statistically significant.

RESULTS

Table 1 shows a comparison of patients with hypochondriasis and somatization disorder in terms of age, gender, marital and job status, income, and education level. The mean age was 35.82±11.88 in the hypochondriasis group, and was 39.54±13.64 in the somatization disorder group. With one exception, the two groups did not differ significantly with respect to their sociodemographic characteristics. More than half of the hypochondriacs were male (59.1%); most of the patients with somatization disorder were female (70.6%).

Table 2 shows the comparison of the hypochondriasis and somatization disorder groups in terms of psychiatric scales. A statistically significant difference arose between the two groups in terms of the HAI scores. The HAI score was higher in the hypochondriasis group. The two groups did not differ in terms of HDRS, STAI, SSAS, SDQ-20, DES and BAI.

DISCUSSION

The aim of the present study was to investigate

Table 1. Comparison of hypochondriasis and somatization disorder group's sociodemographic characteristics

Characteristics		Hypchondriasis	Somatization disorder	p
Education level (%)	Primary school	38.10	60.00	0.276
	Secondary school	4.80	8.00	
	High school	28.60	16.00	
	University	28.60	16.00	
Gender (%)	Male	59.10	29.40	0.017
	Female	40.90	70.60	
Marital status (%)	Single	18.20	20.40	0.457
	Married	81.80	69.40	
	Divorced	0.00	8.20	
	Widowed	0.00	2.00	
Job status (%)	Employee	91.70	80.00	0.289
	Retired	8.30	6.70	
	Student	0.00	13.30	
Family type (%)	Nuclear	81.00	69.40	0.466
	Extended	19.00	28.60	
	Other	0.00	2.00	
Socioeconomic status (%)	Good	18.20	6.00	0.306
	Middle	72.70	84.00	
	Poor	9.10	10.00	
Residence (%)	Village	6.20	14.00	0.687
	Town	18.80	16.30	
	City center	75.00	69.80	
Age (mean±SD)		35.82±11.88	39.54±13.64	0.230

Table 2. Comparison of hypchondriasis and somatization disorder groups in terms of psychiatric scales

Scales	Diagnosis	n*	Mean±SD	p
HDRS	Hypchondriasis	22	19.18±7.62	0.123
	Somatization disorder	51	16.14±7.20	
SSAS	Hypchondriasis	22	33.59±7.76	0.511
	Somatization disorder	47	32.36±7.79	
STAI	Hypchondriasis	21	53.67±8.21	0.319
	Somatization disorder	37	55.03±8.27	
SDQ-20	Hypchondriasis	14	38.43±15.8	0.916
	Somatization disorder	20	37.90±12.71	
HAI	Hypchondriasis	21	33.90±11.85	0.021
	Somatization disorder	49	26.04±11.59	
DES	Hypchondriasis	12	23.38±20.26	0.186
	Somatization disorder	36	14.56±12.66	
BAI	Hypchondriasis	22	27.77±15.07	0.682
	Somatization disorder	51	29.31±14.01	

* *Missing data are due to patients' unwillingness to complete the questionnaires.*

the differences between hypochond-riasis and somatization disorder as to demog-raphic and psychometric properties. Except for gender status, we found no differences between the two groups in terms of their demographic features**.** The patients with somatization disorder were

predominantly female,' whereas hypochondriasis has an equal sex ratio, which seems to be a general tendency in prior studies.[4,14,32] Creed and Barsky, in a systematic review of article published in English since 1966, showed that of the 14 studies that included somatization patients, eight studies found an association with female sex; six did not find this association and of 11 studies using the full or abridged definition of hypochondriasis, one showed a significant association with female sex; the remaining 10 did not.[4] In a review of the existing literatures, Noyes et al. informed about similar findings: several studies have found female predominance in persons with somatization disorder, but women with hypochondriasis do not appear to be at greater risk than men.[14] The nature of female predominance in somatization disorder is not clear. Various factors are believed to contribute to this gender difference, including biological factors (e.g., fluctuations in reproductive hormones in women), sociocultural factors (e.g., socialization processes encouraging somatization in women), and personality factors (e.g., elevations in anxiety sensitivity in women). In case of hypochondriasis, the equal sex ratio may be related to its nature that appears as an anxiety disorder and different explanatory pathophysiological mechanisms.[16]

The diagnoses of somatoform disorders are based largely on the etiological concept of 'somatization,' a hypothetical process that describes a tendency to experience and communicate psychological distress in the form of physical symptoms.[33] Current evidences suggest that somatization depends on a multifactorial etiology with interacting number of etiological factors such as genetics, family background, childhood experiences, stressful life events, personality characteristics, and psychobiological factors.[34-38] Despite evidences that all of these features contribute to the perception of somatic complaints, psychological factors are considered to play an important role in the etiology of somatoform disorders. Anxiety, depression, somatosensory amplification, somatoform dissociation, and health anxiety levels are the overemphasized psychometric properties in somatoform disorders.

Somatization has traditionally been defined as the expression of underlying feelings of depression, anxiety, or other pychological processes which, while not recognized or acknowledged by the person, manifest in the form of physical symptoms. Indeed, it may be primarily a manifestation of a depressive or anxiety disorder. Patients with anxiety or depression are reported to be more than twice as likely to exhibit multiple, unexplained somatic symptoms as those without them.[39] The patients suffering from chronic somatoform disorders are at risk for developing a superimposed depressive or anxiety disorder.[40] At least one-third of patients with somatoform disorders have comorbid anxiety or depressive disorders.[41] Hypochondriasis and somatization disorder are often associated with anxiety, phobic and obsessive-compulsive symptoms and depressive symptoms.[42] The comorbidity between somatoform disorders and anxiety or depressive disorders is highly common, but the meaning of these associations remains unclear.[40] It may be related to partially overlapping diagnostic criteria or psychometric measures, shared psychosocial and biological underlying factors, or one syndrome might act as a risk factor for the development of the other syndromes.[43] We have found no research that directly compared levels of anxiety and depression in groups of patients with Hypo and SD. In our study, no significant differences were found between patients with two disorders in anxiety and depression scores of HDRS, STAI (trait) and BAI (Table 2). Our results indicate that both groups are similar in general anxiety and depression levels but, not surprisingly, the patients with hypochondriasis had higher Health Anxiety Inventory scores compared to the patients with SD (33.90±11.85 versus 26.04±11.59, $p \leq 0.05$). Health anxiety is a condition that consists of either a pre-occupation with having a serious illness or a fear of developing a serious illness. It develops in the absence of organic pathology, such as when individuals perceive themselves as being seriously ill on the basis of a misinterpretation of benign bodily sensations.[44,45] Hypochondriasis involves a pattern of intense health anxiety that is based on these sorts of misattributions. However, the patients with somatization disorder also report fear of disease (or at least serious general health anxiety) because of intense medically unexplained symptoms.[46] Although, no other published research directly compared levels of health anxiety in groups of both disorders, our findings that HAI scores are higher in patients with hypochondriasis is consistent with recent conceptualizations proposing that hypochondriasis is better defined as an extreme form of health anxiety.[16,44]

From a cognitive approach, Barsky et al. have proposed somatosensory amplification as a hypothesis to explain the genesis of hypochondriasis.[7,22] They have suggested that subjects with hypochondriasis have a tendency to focus on

their somatic sensations, and to experience them as intense, noxious, and disturbing. Proposing to clarify boundaries between hypochondriasis and somatization, Schmidt points out that in somatization disorder the physical complaint itself is more pronounced, whereas in hypochondriasis, harmless physical sensations may be given a catastrophic interpretation.[10] In our study, no statistically significant differences arose between the SAS scores of patients with hypochondriasis and those with somatization disorder (Table 2). Rief et al. examined 225 participants, including patients with multiple somatic symptoms not due to a physical condition, patients with hypochondriasis, and healthy controls with another questionnaire. Their results showed that not only patients with hypochondriasis but also patients with somatization syndrome had cognitive concerns and assumptions that were specific for the each disorder.[15]

Alexithymia is a personality construct that is characterized by difficulties in experiencing and verbalizing emotions, impoverishment of fantasy, and a poor capacity for symbolic thought which is then reflected as a tendency toward externally-oriented thinking. Most of the relevant studies support an association between alexithymia and somatization. Alexithymia may be associated with somatization by way of focusing on or amplifying somatic sensations associated with emotional arousal, or by misinterpreting these as symptoms of disease.[47-49] Our findings indicate that both hypochondria and somatization groups are similar in this personality construct.

Somatization also has been proposed as a phenomena related to dissociation. The patients with dissociative disorders report many somatoform symptoms, and many of these meet the DSM-IV criteria of somatization disorder or conversion disorder.[50,51] On the other hand, patients with somatization disorder often have dissociative symptoms such as amnesia.[52] 'Somatoform dissociation' denotes phenomena that are manifestations of a lack of integration of somatoform experiences, reactions, and functions. It is suggested as being highly characteristic of dissociative disorder clients, if not the core feature in many clients with somatoform disorder.[53] We have used two well-known self-report questionnaires that evaluate the severity of dissociation DES, DIS-Q and have found no statistically significant difference between patients with Hypo and SD.

Certain limitations of this study have to be taken into account when interpreting our findings. Firstly, the absence of a control group, by which comparison of the significance of proposed etiological factors in somatoform disorders might be evaluated much more clearly. The aim of this study, however, was to compare patients with hypochondriasis to those with somatization disorder. Since studies have already investigated effects of the above-mentioned factors on somatization, our protocol chose not to incorporate a control group. Second, because of the cross-sectional design of our study, we can not draw conclusions as to whether proposed psychological factors are the predisposing and sustaining factors for somatization disorder and hypochondriasis, or whether they are the secondary phenomena accompanying aggravated somatic symptoms. Third, the sample size of 73 patients was rather small for this kind of study, which may have had an impact on the statistical analyses. But, since these diagnoses are so rarely found in clinical settings, we included only consecutive admissions to our unit.

As a conclusion, our results show that hypochondriasis and somatization disorder are similar.

In terms of psychometric and demographic variables except for healthy anxiety. We found higher healthy anxiety levels in the hypochondriasis group compared to the somatization disorder group. Our results support the idea that the categorization should be based on the health anxiety. Health anxiety represents a continuum ranging from an absence of health concerns to pathological health anxiety. Although, clinical observations and empirical research indicate that health anxiety is a common feature of several other disorders,[44] excessive and maladaptive health anxiety is a central feature of hypochondriasis.[54] Therefore, some authors suggest that patients with pathological health anxiety should be treated as belonging to a unique disorder.[54-56] Patients with hypochondriasis have been found to have a better response to psychological interventions than patients with other somatoform disorders.[54]

The former diagnostic category of 'somatoform disorders' is now referred to as 'somatic symptom and related disorders' and new diagnostic entities are developed; namely 'somatic symptom disorder (SSD)', and 'illness anxiety disorder (IAD)' in DSM-5.[13] It could be said that the organizing principle has been changed from somatization to the main reference of somatic symptoms, whether medically explained or

not.[57] The concept of hypochondriasis is partly reflected in illness anxiety disorder and partly in somatic symptom disorder. Depending particularly on the presence or absence of somatic symptoms, a patient that would have been diagnosed with hypochondriasis in DSM-IV will now be diagnosed as having IAD (if the somatic symptoms are absent or mild) or as having SSD (if one or more somatic symptoms are present and are distressing or result in significant disruption of daily life).[58] A potential problem with this formulation is the lack of clarity inherent in the overlapping criteria of somatic symptom disorder and illness anxiety disorder. Although the difference between SSD and IAD concentrates on the presence or not of illnesses,[59] there is some overlapping among symptoms of both entities, because of imprecision in crucial measurable behavioral and cognitive symptoms (e.g., rumination).[54] Moreover, both diagnoses share 'high level of anxiety about health or symptoms' as a common criterion.[13] In a recent study, Bailer et al. found little empirical support for the distinction of high health anxious individuals into two diagnostic groups. In sum, their results suggest that it is still an open question if SSD and IAD indeed represent distinct forms of hypochondriasis, in particular with regard to levels of health anxiety and other associated psychological features supporting the diagnoses.[54] The possible distinctions between somatic symptom disorder and illness anxiety disorder remain to be investigated. Therefore, Starcevic stated that if illness anxiety disorder and somatic symptom disorder do not prove to be two relatively distinct conditions, it will seem that the partition of hypochondriasis in DSM-5 has failed to adequately address the heterogeneity of the concept of hypochondriasis and represent the range of its manifestations.[59] An additional unsolved problem is the retention of the entire concept of hypochondriasis in the grouping of somatic symptom and related disorders, instead of incorporating it into the anxiety disorders grouping or the obsessive- compulsive and related disorders (OCRD) grouping. For ICD-11, the Working Group proposes that hypochondriasis be included within the grouping of OCRD, with illness anxiety disorder listed as a synonym, and that it be cross-referenced to the anxiety disorders grouping.[58] Consequently, questions persist about whether Hypo and SD or SSD and IAD represent distinct categories or separate dimensions of somatization. There are also differing opinions as to whether the health anxiety/hypochondriasis should remain in the somatic symptom and related disorders category or be moved to the anxiety disorders category.

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