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Somatic Symptom Disorder: Historical Process and Biopsychosocial Approach

Somatik Belirti Bozukluğu: Tarihsel Süreç ve Biyopsikososyal Yaklaşım

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Abstract

Somatization is a concept in which the mind-body relationship is deeply felt. Biological, cognitive, psychodynamic and cultural factors contribute to its emergence. The definition of somatization as a symptom of a mental disorder, its etiopathogenesis, maintenance factors and treatment are multifaceted and complex. This is one of the most discussed mental disorders in the historical process. It was included in the classification with the title of "Somatic Symptom Disorders and Related Disorders" with the last edition of DSM. Somatic symptom disorder causes a decrease in the quality of life, loss of disability and high costs in health services. Therefore, it is necessary to consider the symptoms of the disease in a biopsychosocial integrity.In this study, it is aimed to summarize the historical process of somatic symptom disorder, to present its causes and basic treatment approach in biopsychosocial integrity.

Keywords: Somatoform disorders, classification, psychosomatic medicine

Öz

Somatizasyon zihin-beden ilişkisinin derinden hissedildiği bir kavramdır. Ortaya çıkmasında biyolojik, bilişsel, psikodinamik ve kültürel etmenlerin katkısı bulunmaktadır. Bir ruhsal bozukluğun belirtisi olarak somatizasyonun tanımı, oluş nedenleri, sürdürücü etkenleri ve tedavisi çok yönlü ve karmaşıktır. Bu bozukluk tarihsel süreçte üzerinde en çok tartışılan konulardan biridir. DSM'nin son baskısı ile birlikte "Somatik Belirti Bozuklukları ve İlişkili Bozukluklar" başlığıyla sınıflandırmada yer almıştır. Somatik belirti bozukluğu yaşam kalitesinin azalmasına, yeti kaybına ve sağlık hizmetlerinde yüksek maliyete yol açmaktadır. Bu haliyle hastalıkla ilgili belirtileri biyopsikososyal bütünlük içinde ele almak kaçınılmaz olmaktadır. Bu çalışmada somatik belirti bozukluğunun tarihsel sürecinin özetlenmesi, oluş nedenlerinin ve temel tedavi yaklaşımının biyopsikososyal bütünlük içinde sunulması amaçlanmıştır.

Anahtar sözcükler: Somatoform bozukluklar, sınıflandırma, psikosomatik tıp

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SOMATIZATION can be defined as the expression of psychological problems by way of somatic symptoms. Somatization as a common form of communication during infancy where verbal communication is not possible leaves its place to verbal expression with the development of language. Somatization is a concept in which the mind-body relationship is deeply felt with biological, cognitive, psychodynamic and cultural factors contributing to its emergence and maintenance. Somatically experienced symptoms that cannot be explained by any physical disease have been present since the beginning of humanity (Lipowski 1988). The historical process dates back to hysteria and is among the most frequently discussed issues in classification systems. This disease was included in the classification with the title of "Somatic Symptom Disorders and Related Disorders" with the last edition of DSM (DSM-5) (APA 2013). The last identification of the concept that has undergone significant transformations over the years has attracted attention among the clinical and academic circles (Hüsing et al. 2018). In addition, it also attracts attention that concepts such as "somatoform", "somatization" have not been easily left behind in both daily practice and academic literature.

Somatic symptom disorder results in the reduction of the quality of life as well as loss of abilities thereby increasing the expenses on healthcare services. When somatization emerges as a mental disorder symptom and when the confusions related with the definition of the concept, its reasons, maintaining factors are taken into consideration, it becomes inevitable to approach the patients in biopsychosocial integrity (Morabito et al. 2020). The utilization of psychoeducation, psychotherapies and psychopharmacological agents are suggested in the treatment. None of these methods are sufficient by themselves and many factors should be taken into consideration simultaneously (D'Souza and Hooten 2021). Handling of these concepts that seem to have a complex nature will contribute to reaching a clearer understanding. The consideration of psychology based somatic symptoms and their position in the classification systems have been a matter of debate since hysteria. The aim of the present study was to reevaluate the position of somatic symptom disorder in classification systems and to emphasize the importance of considering biopsychosocial elements as a whole in the understanding and treatment of this disease.

Somatization and somatic symptom disorder in the historical process

Somatization is a concept that physicians have sought to understand since the ancient history of humanity. It is known that the concepts of melancholia and hysteria have been used by the Egyptians and Summerians back in 2600 BC. For many years, it been used together with the words hysteria, melancholia and hypochondriasis. Chinese and Indian medicine considered the mind and the body as intertwined concepts. It has been accepted in Chinese medicine that lack or abundance of emotions (joy, anger, sadness, grief, anxiety, fear, scare) caused diseases. Whereas it was believed in Indian medicine that passion is located at the chest, ignorance at the abdominal cavity and that certain personality traits are settled in various organs or that strong emotions lead to special behaviors (Hollfied 2005). It has been asserted in Kahun tablets dating back to 1900 BC that diseases are caused by the translocation of the uterus to other organs. Hysteria is undoubtedly one of the concepts that first comes to mind when we think of somatization which

is also one of the concepts for which there is a confusion of definitions. Hysteria has been derived from the Greek "hysteron" (uterus) (Ünal 1999). Hippocrates identified hysteria as a disease specific to women and it has been believed until the 17th century that hysteria is caused by the unsuppressed desires of the uterus that roam freely in the body (Hollfied 2005).

Mental and physical diseases have been attributed to magical reasons during the darkness of medieval times with a strong belief that hysteria patients have sold their souls to the devil. These were the years in which divine punishment took the place of scientific inquiry. As was the case in many areas, the Renaissance also led to enlightenment in medicine and the handling of mental diseases. Knowledge on the central nervous system increased during the 17th century leading to the idea that various unexplained symptoms might be related with the brain (Hollfield 2005). Considered to be the founder of neurology, Thomas Willis (1621-1675) considered hysteria in women and hypochondriasis in men as a brain disorder. Thomas Sydenham (1624-1689) made significant contributions to the opinion that hysteria and hypochondriasis are mental rather than physical disorders. George Cheyne (1617-1743) used the term the "English Malady" thus specifying that hysteria and hypochondriasis are brain and/or mind related diseases. William Cullen (1721-1790) was the first individual to use the term "neurosis". An opinion emerged during the 19th century indicating that hypochondriasis is a form of inflammation stemming from the abdomen and moving onto the brain. Extensive studies were conducted on hysteria during this century and hysteria came to be considered as a functional and complex disease following the failure to put forth anatomic pathologies in the brain or the body related with this malady. Working as a physician at the Paris Salpetriere hospital, Jean-Martin Charcot utilized hypnosis in the diagnosis and treatment of hysteria. Charcot and his students made significant contributions to the mechanisms and treatment of hysteria (Ünal 2002, Hollfield 2005). Efforts to treat hysteria through hypnosis and later with free association before Freud paved the way to the development of psychoanalytic theory. The monograph prepared with Joseph Breuer entitled "Studies on Hysteria" was published in 1895 (Breuer and Freud 1895).

The first person to use the term somatization was the German psychanalyst Wilhelm Stekel, while Paul Briquet was the first individual to define the clinical picture known as somatization disorder. In later years, somatization disorder came to be known also as "Briquet Syndrome" to honor his name (Öztürk and Uluşahin 2016). Over time, the use of the concept of hysteria in place of a personality or character type, conversion reaction, phobia and anxiety accompanied psychoneuroses and indeed its inclusion in daily language as a derogatory expression led to a distancing from this concept.

Somatization in contemporary classification systems

The identification of somatization has posed a problem throughout the history of the classification of diseases. Today, there are two primary classification systems that are widely used which are -ICD (International Classification of Diseases and Related Health Problems, World Health Organization) and DSM (Diagnostic and Statistical Manual of Mental Disorders, American Psychiatric Association). The 6th edition of ICD was expanded so as to include damaging or weakening causes; mental disorders were included in the classification under the heading of "Mental, Psychoneurotic and Personality Disorders". Somatization related disorders

are included in the "Neurotic, Stress -related and Somatoform Disorders". Symptoms that could not be explained medically in the 2nd edition of DSM were included in the section "Neuroses, Psychophysiological Disorders and Specific Symptoms". Neuroses were classified as hysterical neurosis, neurasthenia, depersonalization, hypochondriasis and other neuroses (Kırpınar 2019). Somatization disorder was first included in the DSM-III diagnosis classification system (APA 1980). The term conversion that expresses another related disorder which is suggested to develop due to the suppression of physical energy due to psychological conflicts was the first term based on psychoanalytic theory that was included in this classification system. Somatization disorder was classified in DSM-IV under the Somatoform Disorders group (APA 2000). Somatization disorder was defined as a repeating disorder that starts before the age of 30 which is repetitive, multiple, progresses with clinically significant pain, gastrointestinal, sexual and psuedoneurologic symptoms. Somatoform disorders were renamed in DSM-5 as somatic symptom disorders and revisions were made in the diagnostic criteria (APA 2013) (Table 1, 2).

The difficulties regarding the previous diagnostic criteria that especially psychiatrists encountered in understanding and utilization are among the reasons for revision requirement (Mayou 2014). It has been criticized that there are a lot of limiting and fixed measures that require symptoms for many systems to be declared (Smith and Józefowicz 2012). These criteria include the necessity for the non-existence of any medical source for the somatic complaints of the patients and thus carry over an outdated discussion regarding mind-body dualism to clinical practice (Dimsdale et al. 2013). It is not surprising when all these factors are taken into consideration that the prevalence of somatization disorder is quite low at the first stage (Hüsing et al. 2018). On the contrary, it can be thought that the diagnosis of somatic symptom disorder will be encountered more frequently. Indeed, it was reported as a result of a multicentral study conducted using general hospital applications that 33.8 % of the participants were diagnosed with somatic symptom disorder (Cao et al. 2020).

However, these new criteria have also been criticized with regard to certain reflections to the clinic. The primary point of criticism was the fact that the probability for an individual with a medical condition accompanied by chronic symptoms to be diagnosed with a mental disorder is quite high. It is emphasized that the most striking arrangement in diagnostic criteria is focusing

Table 1. DSM-IV Somatoform Disorders and DSM-5 Somatic Symptom Disorder and Related Disorders

DSM-IV (Somatoform disorders)	DSM-5 (Somatic symptom disorder and related disorders)
Somatization Disorder	Somatic Symptom Disorder Ongoing with a dominant pain
Undifferentiated Somatoform Disorder	Disease Anxiety Disorder
Conversion Disorder	Conversion Disorder
Pain Disorder Accompanied by Psychological Factors Accompanied by Both Psychological Factors and the General Medical Condition	Psychological Factors that Affect Other Medical Conditions
Hypocondriasis	Artificial Disorder
Body Dysmorphic Disorder	Other Identified Somatic Symptom and Associated Disorder
Somatoform Disorder that cannot be identified in another way	Other Unidentified Somatic Symptom and the Associated Disorder

Table 2. DSM-IV Somatization Disorder and DSM-5 Somatic Symptom Disorder diagnostic criteria

DSM-IV	DSM-5
Presence of many physical complaints starting before the age of 30 that have emerged in a period of several years leading to a search for treatment or disruptions in social, professional or other areas of functionality	Presence of 1 or more than one somatic symptom that are distressful or that have a significant impact on daily life
Any one of the diagnostic criteria provided below should be met, any of the symptoms may emerge at any point during the course of the disease Four pain symptoms Two gastrointestinal symptoms A sexual symptom A pseudorneurological symptom	Somatic symptoms emerging with at least one of the following or health thoughts, emotions or behaviors that accompany them Continuous thoughts that are disproportionate with the significance of the symptoms Continuously high level anxiety related with health or the symptoms Spending excessive amount of time and internal strength to these symptoms or health anxiety
Presence of one of the following: None of the B criteria symptoms can be fully explained as the direct impacts of a known medical condition or substance after sufficient examination Even if there is a related general medical condition, physical complaints or the social or professional disruptions that develop as a result are much higher than expected based on the story, physical examination or laboratory findings	Even though a certain somatic symptom is not always present, the presence of its associated symptoms may be extended (more than 6 months)
D. These symptoms do not emerge purposefully or behaviors are not in accordance with the presence of such symptoms	
	The type with dominant pain (formerly known as pain disorder) Ongoing Not intensive/moderate/intensive

on the impacts on the thoughts, emotions or behaviors of the individual rather than the inability to provide a medical explanation of the symptoms (Mayou 2014). This change may be required to prevent individuals with conditions that cannot be medically explained to be diagnosed with a mental disorder. However, it is also indicated that it will lead to confusions regarding the assessment of individuals with severe physical disorders (Mayou 2014, Barsky 2016). According to Frances (2013), 15% of cancer patients, 15% of patients with heart diseases, 25% of patients with irritable bowel syndrome and chronic widespread pain patients can be identified as somatic symptom disorder. It is also asserted that erroneous positive diagnosis among the general population will reach 7%.

In addition, it is also considered that the changes in the diagnostic criteria will also lead to certain difficulties in making comparisons with previous literature. As an example, it is necessary to identify the similarities and differences between "hypochondriasis" in the old criteria and the "disease anxiety disorder" identified in DSM-5 (Barsky 2016). Confusions related with naming and the identification by doctors and therapists working in the field are also still ongoing. It was reported as a result of a study evaluating the perspective of experienced therapists on somatic symptom disorder treatment that the participants defined the same concept with terms such as

"functional", "somatoform" or "psychosomatic" (Weigel et al. 2020). As can be seen, significant efforts have been put in for the psychiatric classification of somatic symptoms. Even so, varied criticisms and different opinions continue to contribute to the development of the concept. The fact that many different factors play a role in the onset of the disease may be an important reason for the classification confusion in this field. According to a study in Germany, majority of the general population are of the opinion that stress at work is the most probable reason for somatic symptom disorder (Knesebeck et al. 2020). The multidimensionality of the reasons underlying the disorder also renders clinical assessment difficult thus leading to various dilemmas with varying medical, economic and social aspects. According to Morabito et al. (2020), the increase in sub-branching, the pressure that doctors feel in relation with the possibility of overlooking probable medical conditions along with the possibility to omit the biopsychosocial framework comprise the reasons for this difficulty. This disorder is known to be caused by many different biological, cultural and psychological reasons in addition to daily stress.

Etiopathogenesis in somatic symptom disorder

Biological reasons

Hypothalamo pituitary adrenal axis (HPA) plays a vital role in stress response. While it is possible that HPA axis may become more active in depression, it is indicated that there is hypocortisolism in somatization (Heim et al. 2000, Dinan 2001). It has been argued that long term stress exposure and the over-accumulation of regulatory T-cells leads to burnout in the HPA axis in these patients (Pukhalsky et al. 2008). It is known that depression and pain use similar biological pathways, that the key neurotransmitters in pain pathways are serotonin and noradrenalin (Ball et al. 2011). A negative correlation has been reported in somatoform disorders between high pain scores and 5-hydroxy indol acetic acid (5-HIAA) and tryptophan levels (Schwarz et al. 1999). It has been observed that an increase takes place in the activity of the enzymes that play a role in tryptophan decomposition resulting from the impact of stress and inflammatory processes; that there is an increase in kynurenine and quinolinic acid substances known to have a neurotoxic effect in addition to a decrease in kyurenic acid known to have a neuroprotective effect. It has been reported in somatization patients that the plasma tryptophane levels are low, kynurenine/kynurenic acid and kynurenine/tryptophane ratios are high (Anderson et al. 2012). It has been understood that the findigns related with tryptophane metabolites continue over the long run and that they do not display a change over time in somatoform disorder patients as a result of the 12 week assessment (Krause et al. 2019). It has also been illustrated that the oxidative stress parameters increase in somatic symptom disorder (Sahin et al. 2019).

It has been asserted that proinflammatory processes may play a role in disease behavior in somatization disorder, increase in non-specific somatic symptoms and sensitivity to painful stimulant (Rief et al. 2010). A correlation has been observed between the proinflammatory activation and anterior cingulate cortex activity in individuals exposed to stressful life events for long periods of time. It is also argued that the increase in the activity of the anterior cingulate cortex acting as a bridge between attention and emotion results in an increase in sensitivity to undesired stimulants and somatic sensations (Harrison et al. 2009). According to a meta-analysis study, differences related with five neural areas stood out in patients with somatization

disorder: premotor and supplementary motor cortexes, medial frontal gyrus, anterior cingulate cortex, insula and posterior cingulate cortex (Boeckle et al. 2016). Whereas different studies have reported findings on volume increase in nucleus caudate, amygdala and hypoperfusion in non-dominant hemisphere (Hakala et al. 2004, Atmaca et al. 2011). Moreover, an increase in anterior cingulate cortex and insula activity was observed when subjected to undesired stimuli (Atmaca 2012). A PET study illustrated low glucose metabolism in the putamen and nucleus caudate in patients with intensive somatization (Hakala et al. 2006). Pan et al. (2021) conducted a study as a result of which it was reported that the catastrophizing and anxiety observed in individuals with somatic symptom disorder are related with the dorso-medial prefrontal cortex grey matter volume. Based on a recent systematic review study, it seems difficult to reach a definitive conclusion in somatoform disorders based on the findings of structural neuroimaging studies. Even so, it is indicated that there are changes in the brain networks related with cognitive control, emotion regulation and processing, stress and somatic-visceral perception (Rossetti et al. 2021).

Pain is not just a sensation but a multidimensional experience. While nociception defines the afferent neuronal activity transmitting sensory information on stimuli that may lead to tissue damage, pain is a conscious experience that requires cortical activity and that can develop in the absence of nociception (Kidd and Urban 2001). It is considered that somatization patients exaggerate their somatic sensations through elective perception and interpret them in line with the disease. This concept has been defined as a cognitive style entitled as "somatosensorial amplification" (Barsky 1992). The term "central sensitization" has been put forth in order to define the neurobiological assumption indicating that individuals prone to somatization have an over-sensitive neural network. Subject to central sensitization, harmless and weak stimuli activate the nociceptive specific dorsal horn cells. The clinical result of this is the experience of pain through stimuli that will not normally result in pain. Bourke et al. (2015) indicated that the neural network related structures which stand out in central sensitization are the insula related with multiple pain input, threat perception, emotional regulation and motivation as well as striatum that plays a role in saliency detection. Over sensitivity in the limbic system as another biological mechanism and the correlation between the decrease in hippocampal volume and childhood traumas also seem to be related with the central sensitization phenomenon (Dannlowski et al. 2012). Another study has evaluated the cortical activity at the time of giving a painful stimulus to participants with somatic symptom disorder. A correlation was identified between the mean pain threshold level and left central occipital gyrus activity and somatosensorial application level and right angular gyrus activity (Colak et al. 2021).

The genetic studies conducted lead us to think that genetic changes related especially with the monoaminergic system may be related, however it seems distant from pointing out a common genetic source. The unique processes in the development of the symptoms along with the interactions between different biological and psychosocial factors should be taken into consideration in order to reach a better understanding of this role (Rief et al. 2010). Based on the high prevalence of a trauma story experienced especially during early periods, it has been emphasized in a study leading to discussions on the probable genetic causes of the changes in the brain in somatic symptom and related disorders that the epigenetic changes caused by the

traumas may be explanatory (Frodl 2016). It has been reported in another study that there is hypomethylation in the glucocorticoid receptor gene (NR3C1) in the somatic symptom disorder group and hypermethylation in the depression group (Çetin 2018). This was interpreted as such that it may be related with the difference in the HPA axis between the two disorders.

Cultural and psychological reasons

Somatic expressions related with psychosocial stress are among the subjects most frequently discussed by cultural psychiatry. Ethnic origin, low education level, low socioeconomic state and female gender are among the prominent social factors associated with somatization (Escobar and Canino 1989, Kirmayer and Young 1998). As an example, American and Korean volunteers took part in a study aiming to conduct an assessment of somatization in the cultural context. It was identified that Korean participants used words related with the body more frequently when explaining their relations with stressful situations and that they felt more sympathy when asked to read texts with somatic expression while explaining their emotions (Choi et al. 2016). Even so, the emergence of psychological disorder with various somatic symptoms may be encountered in all cultures including the western societies (Beyazyüz and Göka 2013). Kirmayer and Ryder (2016) indicate that the assertion that somatization is a situation that belongs to non-western societies is now outdated. They suggested that the aforementioned assertion is related with the fact that older studies tend to make overgeneralizations with the groups. The authors specified that somatization is also a frequently utilized expression of mental distress in western cultures as well.

Pennebaker and Watson (1991) argued that attention tends to focus on internal stimuli in the absence of meaningful information in the environment which may result in an increase in symptom declaration. Accordingly, it is indicated that individuals raised in social environments where it is dispraised to express emotions during development periods are in the highest risk group for somatization (Berry and Pennebaker 1993). Traumatic life experiences are effective in the development of somatic symptom disorder. Ford (2000) stated that majority of the somatization disorder patients come from chaotic families with sociopathy and alcoholism. A statistically significant correlation was reported in a meta-analysis study between sexual abuse story and functional gastrointestinal syndrome, non-specific chronic pain, non-epileptic seizure and chronic pelvic pain (Paras et al. 2009). A study conducted in our country illustrated that 40 female patients with somatization disorder have experienced more traumatic experiences (emotional neglect, emotional abuse and physical abuse) during childhood compared with the controls (Taycan et al. 2014).

The perception and expression of pain may also be affected as the form of satisfying unconscious sexual impulses. Suppression, isolation, inversion and conversion can be listed among the primary ego defense mechanisms used against pain (Algül and Tütüncü 2013). When considered from the perspective of attachment forms, insecure attachment incidence was observed to be higher in individuals with somatization disorder. It is considered that the problems in these patients related with interpersonal relations and healthcare may be associated with insecure attachment (Waller et al. 2004). A negative correlation was identified in a previous study between the maternal sensitivity level evaluated when the children were 18 months and the somatization levels at the age of 5. It was reported in the same study that there are correlations between insecure attachment and somatization as well as between anxious attachment and health anxiety

(Maunder et al. 2017). Personal attributes may also affect the development of somatization related disorders. Somatization disorder prevalence was observed to be high in patients with borderline personality disorder. It is interpreted that this correlation may be a reflection of the similar patterns displayed by both clinical groups in their social relations (Mai 2004). In addition, it has been reported in a systematic review study that somatic symptom disorder prevalence is higher in individuals with antisocial personality disorder which may be associated with genetic reasons related with serotonin metabolism (Espiridion and Kerbel 2020).

Patient role is the identity acquired by the addition of certain difficulties and privileges to normal discomfort behavior. With this role, the individual may attain privileges such as being accepted as someone who wants care and being exempt from ordinary obligations. This is not a simulation and the motivation leading to such behaviors is unconscious (Kırpınar 2013). Barsky (1992) used the following expressions to explain this situation, "there is no medication or surgery to cure the need to be sick". Craig et al. (1994) identified in their study that secondary gains are more prevalent among somatizing individuals compared with psychiatric disorders. They put forth three reasons related with patients who express negative emotions through somatic symptoms: differences in temperament and physiological response; factors related with social, culture and language; previous disease experiences. It has been reported that majority of these patients are neglected and that they have been subject to the interest of others only when they are physically sick. Early childhood experiences may lead to learning the state of "being sick". The child who realizes that he/she attracts the attention of the parent or that sick individuals in the family attract all attention may identify with the sick individual.

As can be seen from this literature review, biological, psychological, social and cultural factors play a role in the emergence of such clinical manifestations that are defined differently by expressions such as somatization, psychosomatic symptoms, and medically unexplained symptoms. It is understood that none of these axes are more or less important than the others. This makes it difficult to classify somatic symptoms as a mental disorder while also requiring a multidimensional sensitivity in clinical assessment.

Primary treatment approach

Psychological, social and cultural factors should be taken into consideration when identifying the treatment method for somatic symptom disorder. Treatment principles should generally be as such; giving regular appointments with short intervals in order to avoid applications for each symptom; limiting diagnostic tests after a thorough medical evaluation at the start; reassuring that physical diseases have been ruled out; providing education on coping with somatic symptoms and setting a goal to ensure recovery in functionality instead of a complete cure (Abbey et al. 2005). The trust given when establishing a therapeutic relationship can be summarized in five steps as; empathetic listening, identification, confrontation, naming, approval (Allen et al. 2006). It is very important to conduct psychoeducation on the patients. It has been reported that significant improvements in symptoms have been observed in patients with somatic symptom disorder after giving them one psychoeducation session including subjects such as the pathways of pain in the brain, somatic responses to stress, effects of exercise and diet (Johnson et al. 2020).

Doctors frequently encounter patients with somatic symptom disorder who have undergone

many medical procedures. Such group of patients may lead to strong emotional reactions in clinicians. They may feel anger and stress when faced with patients who continuously complain and who are never satisfied (Sharpe et al. 1994). When faced with symptoms that cannot be explained through physical reasons, doctors may feel that their own competence is under question and they may in turn blame the patients for making up these symptoms (Hahn 2001). A group of therapists stated that working with individuals with somatic symptom disorder may be difficult and somewhat irritating due to somatic fixation of the patients and the difficult diagnosis processes they undergo (Weigel et al. 2020). It has been reported in a study on the role of the clinician in the management of child patients with somatic symptom disorder that there is a significant gap in literature regarding the failure to diagnose the underlying disease and the impacts of this on the patients and their families. It has been emphasized in the aforementioned study that the inability to pinpoint a physical cause leads to concerns in the patients and their families that the examinations conducted have not been sufficient, that the doctors prefer placing diagnoses that require different medical procedures such as tick bite, infection diseases, fibromyalgia, chronic disease instead of placing a mental disorder or behavior problem diagnosis and that the medicolegal pressure leads the doctors to prefer over-medicalization (Morabito et al. 2020). Delays in diagnosis and intervention may result in the worsening of mood and anxiety symptoms, multiple applications to experts and medical tests leading to high expenses. Chronic somatic symptoms are accompanied with a high level of functionality loss. Individuals may resort to the use of alcohol, narcotic drugs or chronic opioid analgesics for self-medication when the problems they are experiencing cannot be explained sufficiently. Extensive diagnostic tests and medical procedures also increase the risk of iatrogenic damage. It has been illustrated that the tests requested by clinicians to provide assurance to the patient do not have any reducing, relaxing effect on the symptoms (D'Souza and Hooten 2021).

Psychotherapies

Psychotherapies hold an important place in the treatment of these patients. Cognitive behavioral therapy (CBT) is the method with extensive proof. Even though there may be variations among the patients, the treatment encompasses psychoeducation, problem solving training, communication skills, behavioral activation, cognitive restructuring and relaxation exercises (Şafak and Türkçapar 2013). It has been reported in a meta-analysis study evaluating the efficiency of treatments for somatoform disorders that CBT is effective both on groups and individuals (Kroenke 2007). Along with CBT, it has also been set forth as a result of a meta-analysis study assessing the randomized controlled studies utilizing methods such as mindfulness based therapy and psychodynamic therapies that post-treatment psychotherapies are beneficial (Van Dessel et al. 2014). A more recent review study showed that CBT is beneficial for somatic symptom disorder in children. It has been indicated that further studies are necessary especially on psychosocial stressors, health anxiety and catastrophizing (Tamas et al. 2020). Moreover, it was also reported that face-to-face or distance emotional awareness and emotional expression focused therapies improve the symptoms at a statistically significant level (Maroti et al. 2021). While psychotherapy was effective in increasing functionality and reducing treatment costs in studies during which the management of somatic symptom disorder patients was conducted via

consultation at the first stage, no change was observed in symptom intensity (Kroenke 2007). The aim for the treatment of these patients should be increasing functionality and reducing the number of useless hospital visits instead of ameliorating the symptoms.

Pharmacotherapy

Even though psychosocial approaches are among the primary treatment methods for somatic symptom disorder pharmacotherapy may also be utilized additionally. Guidelines suggest the use of antidepressants only in the presence of comorbid depressive symptoms. The impact mechanism of pharmacotherapy in these patients is less understood compared with psychotherapies (Kleinstauber et al. 2014). There is limited proof on the effectiveness of the majority of the treatments. It is considered that the benefits of antidepressants in somatization may be related with effects such as; the analgesic effects of serotonin and norepinephrine on pain pathways (Stahl 2002), the role of immune regulatory effects on symptoms such as fatigue (Kubera et al. 2001), improving the condition in comorbid cases such as depression, anxiety disorders, post-traumatic stress disorder (de Waal et al. 2004), direct effects on organ systems related with somatic symptoms (slowing down of the gastrointestinal transition through the anticholinergic effect of tricyclic antidepressants etc.) (Gorard et al. 1994).

Conclusion

The present manuscript has taken a look at how somatic symptoms thought to be related with mental causes have been taken into consideration in medicine throughout the years and studies on the causes of these symptoms have been summarized in the light of the related literature. Important debates have been conducted on the "dualist" viewpoint regarding the mind-body separation that came to prominence when the human mind was placed at the center during the post-enlightenment era. Whereas modern scientific studies point out that the mind and body are concepts that cannot be considered separately. Even though the place of this subject in the history of thought is not among the objectives of this article, the best equivalent of the aforementioned discussions in modern psychiatric practice has focused on the diagnostic class known as "somatic symptom and related disorders". It is observed that many studies have been conducted on these disorders with perspectives varying from physiology, biochemistry, neuroimaging, genetics, culture, psychodynamic and cognitive theories and trauma. These studies point out that it is difficult to consider the mind and the body separately.

As is the case in this old and deep discussion, classification systems also struggle with positioning the somatic symptoms thought to be associated with mental, psychic symptoms. While the previous diagnostic criteria emphasized the fact that symptoms are "medically unexplained", DSM-5 shifted the focus to the mental reactions of the individual. It is an important development to move away from the "not medical" description when identifying a class of psychiatric diagnoses. This change can be evaluated as a first step in encompassing the emotions, thoughts and behaviors of individuals within the medical practice instead of pushing them out of medicine based on the grounds that the aforementioned somatic symptoms do not have -sufficient- medical explanation.

Moreover, the perception that the symptoms of the individuals are "not in the body" push

these symptoms outside the scope of general medicine leading individuals to feel misunderstood and neglected (Dimsdale et al. 2013). The approach that can be presented to individuals with a physical disorder (psychoeducation, arrangement of social factors etc.) with the new form of understanding suggested by the new classification system may be beneficial for preventing unnecessary examinations and treatments. Individuals with excessive somatic symptom disorder were examined in a recently published study. While on average 30 minutes are spared for physical complaints in the general population, it was observed that individuals with somatic symptom disorder deal with their symptoms about 4 hours on average. It has been understood that somatic symptoms and the intensity of the associated psychological reactions are predictive with regard to the increased use of healthcare services (Toussaint et al. 2021). It is a difficult and sensitive issue to place a somatic symptom disorder diagnose on an individual with a physical disease. Psychiatric assessment should be considered for somatic symptoms that cannot be associated with the existing physical condition. The evaluation of somatic symptom disorder with biopsychosocial integrity has gained even greater importance together with the COVID-19 pandemic. As emphasized by Willis and Chalder (2021), individuals have started to focus more on somatic systems with the pandemic thus attributing greater meaning to them. Even though majority of the symptoms identified as extended covid symptoms are related with physical diseases, individuals may put in excessive mental effort on these symptoms. In this case, it is indicated that a multidimensional follow up with regard to somatic symptom disorder will be beneficial. Despite all these factors, it should be kept in mind that the new diagnostic criteria mentioned in the article has a low reliability and is quite subjective and opinions should be taken into consideration which indicate that these criteria may lead to overlooking different medical conditions in the differential diagnosis.

In conclusion, it seems that there is quite a way to go regarding the classification of this disorder for which there is a consensus among experts on the difficulty of its treatment. It is very important in clinical practice to take into consideration these symptoms in biopsychosocial integrity, to pay attention to the relationship of trust between the patient and the doctor and to utilize psychosocial approaches and other treatment options based on the requirements of the patient.

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