

UPDATE ARTICLE

Hypochondriasis: considerations for ICD-11

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The World Health Organization (WHO) is currently revisiting the ICD. In the 10th version of the ICD, approved in 1990, hypochondriacal symptoms are described in the context of both the primary condition hypochondriacal disorder and as secondary symptoms within a range of other mental disorders. Expansion of the research base since 1990 makes a critical evaluation and revision of both the definition and classification of hypochondriacal disorder timely. This article addresses the considerations reviewed by members of the WHO ICD-11 Working Group on the Classification of Obsessive-Compulsive and Related Disorders in their proposal for the description and classification of hypochondriasis. The proposed revision emphasizes the phenomenological overlap with both anxiety disorders (e.g., fear, hypervigilance to bodily symptoms, and avoidance) and obsessive-compulsive and related disorders (e.g., preoccupation and repetitive behaviors) and the distinction from the somatoform disorders (presence of somatic symptom is not a critical characteristic). This revision aims to improve clinical utility by enabling better recognition and treatment of patients with hypochondriasis within the broad range of global health care settings.

Keywords: Hypochondriasis; illness anxiety disorder; obsessive-compulsive and related disorders; definition; classification

Introduction

The World Health Organization (WHO) is currently revising the ICD. The 10th version of the ICD¹ was approved in 1990, almost 25 years ago. The development of ICD-11 requires attention to the relevant historical background as well as to more recent developments in understanding of clinical entities related to illness preoccupation and fear. This article addresses the question of how hypochondriasis should be described and classified in the ICD-11, and addresses the considerations reviewed by the members of the WHO ICD-11 Working Group on the Classification of Obsessive-Compulsive and Related Disorders in their proposal for the description and classification of this disorder.

Preoccupation with bodily symptoms and fear of suffering from a serious disease falls on a continuum ranging from a very mild concern about some unusual bodily sensation or observation to severe preoccupation and fear or conviction in individuals in whom thoughts and actions are centered around the overestimated risk of having or developing a serious, life-threatening illness.² Taxometric studies have empirically confirmed that anxiety about health is a dimensional rather than a categorical construct.^{3,4} Normal expressions of concern about health and alertness towards bodily symptoms may be a useful response to changes in the body that are

caused by medical conditions and that warrant medical evaluation and/or treatment. Certainly, from an evolutionary perspective, an appropriate level of anxiety and response to somatic alarm symptoms may have adaptive value. However, when concern about health becomes a matter of preoccupation and continuous fear or distress, it interferes with daily life.

Individuals with such concerns may meet the diagnostic requirements of the DSM-IV-TR⁵ and ICD-10¹ diagnoses of hypochondriasis and hypochondriacal disorder, respectively. Hypochondriasis has negative effects on quality of life, social and occupational functioning, and health care resource utilization, and is thus an important mental disorder to recognize and treat in clinical practice. Although health care practitioners are familiar with those patients who seek reassurance during repeated visits to health care services, resulting in high health care costs, unnecessary diagnostic interventions, and disturbed patient-doctor relationships, hypochondriasis can also lead to severe avoidance, risking unfavorable delays in case of actual diseases. In most patients with hypochondriasis, symptoms wax and wane, with acute exacerbations triggered by stressful periods – e.g., due to loss of a family member, a past experience of actual organic disease, and social circumstances, or in response to hospital and disease-related items in the mass media.⁶

Historical background

Hypochondriasis as a psychiatric concept has been the subject of considerable controversy over the centuries.

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Today, hypochondriasis is considered a mental disorder, but in the 17th century it referred to a common somatic condition, with the name *hypochondria*, introduced by Hippocrates and literally meaning “below the cartilage,” suggesting the involvement of abdominal organs. The transformation of the description over time, with the initial reference to a mental condition occurring in the early 19th century, has been described extensively by Noyes.⁷ Briefly, 17th century authors, still strongly influenced by Galen’s views of pathogenesis, related hypochondriasis to melancholic personality traits, caused by somatic digestive disturbances. Psychological concepts became more prominent in the description of hypochondriasis from the late 18th century onward. At that time, it was thought that a depressive “morbid” state would change body awareness, resulting in digestive disturbances. Although attention started to switch from the intestines to the brain in the 19th century, hypochondriasis became regarded as a neurosis, i.e., a functional rather than structural disturbance. Fear of serious illness was emphasized as its principal characteristic, digestive symptoms were no longer considered as crucial, and bodily preoccupation and hypervigilance and abnormal illness behaviors started to receive attention. During this “physical-to-mental” transformation of the concept of hypochondriasis, it became one of many mental disorders. The historical review by Noyes, mainly focusing on the 17th, 18th, and 19th centuries, shows the influential role of social and cultural factors in shaping the description of the disorder over time, and the uncertainty about how to classify the disorder in relation to other clinical entities.

Psychodynamic theories of hypochondriasis mainly focused on the role of (unconscious) guilt over sexual and hostile wishes, fantasies, and feelings that must be disguised to avoid overwhelming fear of punishment, bodily damage (castration), and death.⁸ The psychodynamic term *hypochondriacal neurosis* was adopted by DSM-II, and despite criticism of and controversy about both the relevant terminology and construct, the terms *hypochondriasis* and *hypochondriacal disorder* persisted in subsequent revisions of DSM and ICD.⁹

Current concepts of hypochondriasis have been considerably influenced by cognitive-behavioral approaches.² Salkovskis & Warwick, for example, have suggested that preoccupation with (ill) health is the key cognitive component, while seeking of reassurance from physicians and repeated checking of the body is the most crucial behavioral component.² These authors put forward the idea that repetitive reassurance seeking is a form of avoidance which serves to maintain the preoccupation with health, just as compulsions increase the impact of obsessions and distress over the long term in patients with obsessive-compulsive disorder (OCD).^{10,11} Since medical reassurance results in immediate relief followed by the longer-term return of anxiety, they proposed that these avoidance behaviors are important maintaining factors and a major focus for treatment. Their case reports indicate that treatments focused on elimination of reassurance (response prevention) and facilitation

of self-directed exposure and cognitive change (cognitive reappraisal) are successful in the reduction of discomfort and attenuation of the urge to seek reassurance.

The long-lasting debate on both the terminology and the conceptualization of hypochondriasis is currently focused on the following issues¹²: 1) is hypochondriasis a distinct primary medical entity or a secondary feature of other psychopathologies? 2) what are the discriminating diagnostic features of hypochondriasis and how can these be differentiated from normality? and 3) how best to classify hypochondriasis, taking into account its relation to somatoform disorders, anxiety disorders, and obsessive-compulsive and related disorders (OCRD)? Here, we summarize the existing but limited literature on these issues, as well as recent developments in relation to DSM-5, and propose the options for ICD-11.

The ICD-10 approach to hypochondriasis

In the ICD-10 Clinical Descriptions and Diagnostic Guidelines for mental and behavioral disorders,¹³ hypochondriacal symptoms are described in the context of both the primary condition hypochondriasis and as secondary symptoms of a range of other mental entities (e.g., delusional disorder and depression). Hypochondriacal disorder (F45.2) is included in the grouping of somatoform disorders. Its main characteristics are: 1) the persistent belief in the presence of at least one serious physical illness underlying the presenting symptom(s), even though repeated investigations and examinations have identified no adequate physical explanation, or a persistent preoccupation with a presumed deformity or disfigurement; and 2) the persistent refusal to accept the advice and reassurance of several different doctors that there is no physical illness or abnormality underlying the symptoms. Five partially overlapping inclusion terms are listed for hypochondriacal disorder, i.e., body dysmorphic disorder, dysmorphophobia, hypochondriacal neurosis, hypochondriasis, and nosophobia, indicating that any of these phenomena should be assigned the diagnosis of hypochondriacal disorder.

Based on more recent research,² some aspects related to the definition of the clinical entity, its relationship to related conditions, and its classification within the somatoform category need to be reconsidered. First, the presence of a physical symptom is not crucial for the diagnosis of hypochondriasis, since in many cases preoccupation with or fear for a serious illness exists without actual somatic symptoms.¹⁴ Second, patients with hypochondriasis seek out reassurance and are happy to learn that there is no immediate threat (in contrast to most patients with other somatoform disorders, who seek a diagnosis and keep on seeking for one), but fail to maintain the immediate feeling of relief after medical reassurance, due to the recurrent preoccupation or concern and return of fear, resulting in avoidance, repetitive reassurance seeking, or other repetitive behaviors.¹⁵ Although checking behaviors and reassurance seeking give some relief, the reduction in

fear is transient.¹⁶ Some patients predominately experience repetitive behaviors, whereas other patients mainly show strong avoidance or switch between avoidance and checking behaviors over time. A third issue that requires reconsideration, based on WHO's priority that ICD-11 be globally applicable,¹⁷ is the requirement in the diagnostic guidelines for hypochondriacal disorder that the individual have interacted with several different doctors who have not found an adequate medical cause for the experienced symptoms. It is problematic in the context of a global system to define primary diagnostic entities based on patterns of access to specific types of health care services.

The DSM-IV approach to hypochondriasis

In the DSM-IV-TR,⁵ hypochondriasis and body dysmorphic disorders are separate entities within the grouping of somatoform disorders. This is consistent with the growing literature indicating that body dysmorphic disorder is a distinct entity with diagnostic validity and clinical utility.¹⁸ The diagnostic criteria for hypochondriasis in DSM-IV include the preoccupation with or fear for a serious disease, based on the person's misinterpretation of bodily symptoms.² DSM-IV also includes a minimal duration of 6 months and an optional specifier, "poor insight," for patients who do not recognize that the concern is excessive or unreasonable.

In the context of diagnostic classification in DSM-IV-TR and ICD-10, and now also DSM-5 (see below), hypochondriasis is considered a somatoform disorder,^{1,5,14} but it has always been at the crossroads of different categories (Table 1). The fact that the presence of somatic symptoms is not a diagnostic requirement for hypochondriasis is arguably inconsistent with its classification within the somatoform disorders. Moreover, given that the key clinical features (preoccupation, anxiety, bodily hypervigilance, and avoidance behaviors) and the most effective treatment strategy (cognitive behavior therapy, mostly including exposure in vivo with response prevention) in hypochondriasis largely overlap with those for anxiety disorders such as panic disorder, social anxiety disorder, generalized anxiety disorder (GAD), and OCD, classification within the anxiety disorders category or the OCRD category would be more consistent with the more recent conceptualizations of the disorder.²

Illness anxiety disorder and somatic symptom disorder in DSM-5

In DSM-5, the concept of hypochondriasis is partly reflected in illness anxiety disorder and partly in somatic symptom disorder, two separate disorders within the grouping of somatic symptom and related disorders (formerly known as somatoform disorders).¹⁴ The common feature across different disorders within the somatic symptom and related disorders grouping is the prominence of somatic symptoms associated with significant distress and impairment. This grouping comprises somatic symptom disorder, illness anxiety disorder,

conversion disorder, psychological factors affecting other medical conditions, and factitious disorders. Depending on the symptoms of the individual, and particularly on the presence or absence of somatic symptoms, an individual patient that would have been diagnosed with hypochondriasis in DSM-IV will now be diagnosed as having illness anxiety disorder (if the somatic symptoms are absent or mild) or as having somatic symptom disorder (if one or more somatic symptoms are present and are distressing or result in significant disruption of daily life). Within the illness anxiety disorder entity, two specifiers have been defined: 1) a care-seeking type with high health care utilization; and 2) a care-avoidant type.

The definition of illness anxiety disorder is specific and includes a cognitive component (preoccupation), an affective component (substantial anxiety), and a behavioral component (care-avoidant and care-seeking health-related behaviors). The definition of somatic symptom disorder, on the other hand, is broader ("thoughts, feelings and behaviors related to present somatic symptoms"). The definition of illness anxiety disorder does not include the feature "hypervigilance to bodily symptoms" as a diagnostic criterion, but mentions that "the individual is easily alarmed about personal health status." Both entities include a duration criterion of at least 6 months to underline the chronicity of the disorders. No insight specifiers have been defined for illness anxiety disorder and somatic symptom disorder, in contrast to some related disorders classified in other groupings, such as OCD and body dysmorphic disorder. A potential problem with this formulation is the lack of clarity inherent in the overlapping criteria of somatic symptom disorder and illness anxiety disorder. A broader potential 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 OCRD grouping. This seems particularly questionable, since illness anxiety disorder does not depend on the presence of somatic symptoms and clearly shares clinical characteristics with disorders in other groupings.

Considerations for ICD-11

Phenomenology

The Working Group proposes the following phenotype definition: hypochondriasis refers to a persistent preoccupation with or fear about the possibility of having or developing one or more serious progressive or life-threatening diseases. The preoccupation is associated with a hypervigilance to and catastrophic misinterpretation of bodily signs or symptoms, including normal or commonplace sensations, and is accompanied by avoidance and/or repetitive behaviors. The preoccupation and/or fear is not simply a reasonable concern related to a specific context of the patient, it persists or reoccurs despite appropriate medical evaluation and reassurance, and causes clinically significant distress or impairment in important areas of functioning.

Table 1 Hypochondriasis in ICD-10, DSM-IV-TR, and DSM-5, and the proposal for ICD-11

	ICD-10 ¹	DSM-IV-TR ⁵	DSM-5 ¹⁴	ICD-11 (proposal)
Category	Somatoform disorders	Somatoform disorders	Somatic symptom and related disorders	Primary: OCD Secondary: anxiety disorders
Name	Hypochondriacal disorder (F45.2)*	Hypochondriasis (300.7)	Illness anxiety disorder (300.7)	Hypochondriasis (illness anxiety disorder)
Diagnostic criteria	A) Persistent belief in the presence of at least one serious physical illness underlying the presenting symptom(s), even though repeated investigations and examinations have identified no adequate physical explanation <i>or:</i> Persistent preoccupation with a presumed deformity or disfigurement B) Persistent refusal to accept the advice and reassurance of several different doctors that there is no physical illness or abnormality underlying the symptoms	A) Preoccupation with fears of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms B) The preoccupation persists despite appropriate medical evaluation and reassurance C) The belief is not of delusional intensity (as in delusional disorder, somatic type) and is not restricted to a circumscribed concern about appearance (as in body dysmorphic disorder) D) The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning E) The duration of the disturbance is at least 6 months F) The preoccupation is not better accounted for by generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, major depressive disorder, separation anxiety, or another somatoform disorder	A) Preoccupation with having or acquiring a serious illness B) Somatic symptoms are not present or, if present are only mild in intensity. If another medical condition is present or there is a high risk for developing a medical condition, the preoccupation is clearly excessive or disproportionate C) High level of anxiety about health, and the individual is easily alarmed about personal health status D) Excessive health-related behaviors or maladaptive avoidance E) Symptom duration at least 6 months F) Not better explained by another mental disorder	A) Persistent preoccupation with or fear about the possibility of having one or more serious progressive or life-threatening diseases B) The preoccupation is associated with a hypervigilance to and a catastrophic misinterpretation of bodily signs or symptoms, including normal or commonplace sensations C) The preoccupation or fear is not simply a reasonable concern to a specific context of the patient and it persists or reoccurs despite appropriate medical evaluation and reassurance D) One or more of the following behaviors occur in relation to the preoccupation or fear: avoidance, checking, information seeking, and/or requests for reassurance E) The preoccupation or fear causes clinically significant distress or impairment in important areas of functioning F) The diagnosis also includes those with no insight or with delusional beliefs
Specifiers		Poor insight	Care-seeking type Care-avoidant type	No insight

OCD = obsessive-compulsive and related disorders.

* Includes body dysmorphic disorder, dysmorphophobia (nondelusional), hypochondriacal neurosis, hypochondriasis, and nosophobia.

As the definition indicates, the phenotype is characterized by four main domains of dysfunction: preoccupation and misinterpretation (cognitive component); fear/anxiety (affective component); hypervigilance to bodily symptoms (attentional component); and avoidance and repetitive behaviors (behavioral component). The preoccupations show overlap with worries in patients with GAD,^{19,20} but in GAD the concerns have a more general content, often related to daily activities, and there are a range of other concerns as well. The preoccupations also show overlap with the obsessions of OCD,^{21,22} but the major difference is that, in hypochondriasis, the thoughts are only related to the concern of having or developing a serious illness. Rumination about illness has shown to be the key symptom in patients with hypochondriasis.²³

Hypervigilance to and catastrophic misinterpretation of bodily signs or symptoms is also present in patients

with panic disorder, but panic attacks are a core feature of panic disorder.²⁴ Individuals with panic disorder may worry that the somatic symptoms they experience during panic attacks are evidence of serious medical illness (e.g., cardiovascular disease), and individuals with hypochondriasis may experience panic attacks in response to health-related stimuli (e.g., emergence of a new symptom or exposure to health information); thus, in cases of hypochondriasis where illness concerns are mainly related to the cardiovascular system, differentiation of the two disorders may be difficult. Another important issue related to differential diagnosis is that avoidance and repetitive safety-seeking behaviors (e.g., body checking, information seeking, reassurance seeking) are common in patients with OCD²⁵ and body dysmorphic disorder²⁶ as well. Although the phenotype of hypochondriasis shows little overlap with somatoform

disorders, some patients with hypochondriasis may present with somatic symptoms. In patients with hypochondriasis, in contrast to those with somatoform disorders, the distress is typically focused on the possibility that the symptoms indicate a serious undiagnosed illness, whereas distress among somatoform patients tends to be focused on the symptoms themselves. Both groups may seek medical attention for their symptoms, but patients with hypochondriasis are typically reassured by appropriate clinical examination and investigations and reassurance by health care providers, though the effects of such reassurance may be temporary.

Some comparative studies have been published on the phenomenological and neurobiological overlap and differentiation between hypochondriasis, panic disorder, and OCD.²⁷⁻²⁹ These studies show that hypochondriasis shares characteristics with both disorders (panic attacks, obsessions, compulsions, attentional bias to disorder-specific or threat-related information, and aberrant recruitment of frontostriatal and limbic brain circuits), yet also suggest that hypochondriasis is a separate entity.

In most patients with hypochondriasis, symptoms wax and wane over time. Both the behaviors and associated insight can change significantly during the course of the disorder. Furthermore, in cases with poor insight, it is important to diagnose hypochondriasis and to differentiate it from delusional disorder and other psychotic disorders, as this distinction has important clinical implications. Although most of the relevant literature is based on patients with delusional and nondelusional body dysmorphic disorder, hypochondriasis and body dysmorphic disorder are more similar than different in this regard, including in their response to pharmacological treatment.³⁰ Thus, one might expect the same issues to arise in hypochondriasis.

Classification

Hypochondriasis is a separate diagnostic entity that lies exactly at the crossroads of three categories, showing overlap with somatoform disorders (now called somatic symptom and related disorders in DSM-5), anxiety disorders, and OCD.

The least optimal classification is among the somatoform disorders. Although this classification might be intuitively appealing for those patients who present with many somatic symptoms, there are three reasons to question this approach. First, in many patients with hypochondriasis, somatic symptoms are absent or mild, and, if they are present, the interference with daily functioning does not result from the somatic symptoms themselves, but is rather the consequence of fear about the symptoms and the related behavior. Second, patients with hypochondriasis are eager to find reassurance that nothing serious is happening in their body (although such reassurance only results in transient relief of distress and may maintain preoccupation over the long term), patients with other somatoform disorders wish for a diagnosis. Third, the therapeutic approach to hypochondriasis differs from the treatment of most somatoform disorders, but

largely overlaps with that of most anxiety disorders and of OCD: cognitive-behavioral therapy, including exposure in vivo and response prevention.³¹

In the process of moving hypochondriasis to a grouping with more closely related diagnostic features, two good alternatives exist. Most key characteristics of hypochondriasis, i.e., anxiety, hypervigilance to and catastrophic misinterpretation of bodily symptoms, and avoidance, strongly resemble the phenotype of anxiety disorders, particularly panic disorder.²⁹ In two comparative brain imaging studies on attentional bias²⁷ and executive functioning²⁸ in OCD, panic disorder, and hypochondriasis, the task-related neural activation patterns showed both overlap and differentiation between the disorders. Gropalis et al. compared 65 patients with hypochondriasis, 94 patients with somatoform disorders (including somatization disorder, undifferentiated somatoform disorder, and somatoform pain disorder), and 224 patients with anxiety disorders (including panic disorder with/without agoraphobia, GAD, and OCD) with regard to demographic variables, clinical features and naturalistic treatment outcomes.³² They found a closer connection between hypochondriasis and anxiety disorders than between hypochondriasis and somatoform disorders.³²

Given the repetitive characteristics of hypochondriasis, both cognitive (i.e., preoccupation) and behavioral (i.e., compulsive checking of the body and internet, repetitive seeking for reassurance from health professionals), and its overlap with OCD^{22,33} and body dysmorphic disorder,¹⁸ which will be classified in ICD-11 as OCRD, classification of hypochondriasis with these disorders would be a viable alternative option. Considering the fact that body dysmorphic disorder and hypochondriasis were both included as part of the ICD-10 diagnosis of hypochondriacal disorder, the most conservative approach would be to keep both disorders in the same grouping; the OCRD, which, in turn, are closely related to the anxiety disorders. Since hypochondriasis shares symptoms with OCD³³ and responds to the same treatments (cognitive-behavioral therapy and serotonergic antidepressants),^{34,35} classification within the OCRD category could add to the clinical utility of the classification system. Although the same arguments hold for the overlap with other anxiety disorders, justifying an additional cross-linkage of hypochondriasis with the anxiety disorders, this is not the case for the somatoform disorders.

Terminology

Not only has the conceptualization of hypochondriasis been a matter of debate for centuries, but the name hypochondriasis itself has been controversial for decades, due to its potentially confusing and pejorative aspects. Depending on the conceptualization of the disorders, alternative terms have been proposed during the last 3 decades: abnormal illness behavior,³⁶ disease phobia,³⁷ illness phobia,³⁸ health anxiety,^{2,39} specific phobia for illness,⁴⁰ illness preoccupation disorder,¹³ heightened illness concern (Fallon scale), and, now, in DSM-5, illness anxiety disorder and somatic symptom disorder. Con-

sidering the main characteristics of the disorder, illness anxiety disorder or illness preoccupation disorder would be reasonable alternatives for the term hypochondriasis. Although the term hypochondriasis has some archaic and pejorative elements, the phrase illness anxiety may not be easily translated across all languages, and it is not logically or clinically useful to categorize and entity titled anxiety disorder in a grouping other than the anxiety disorders. A compromise would be to keep the name hypochondriasis while including the term illness anxiety disorder as a synonym. This synonym is consistent with a second parent classification of hypochondriasis among the anxiety disorders and would also maintain continuity with DSM-5.

Conclusion

For ICD-11, the Working Group proposes that hypochondriasis be included within the grouping of OCD, with illness anxiety disorder listed as a synonym, and that it be cross-referenced to the anxiety disorders grouping. Hypochondriasis is defined as a persistent preoccupation with or fear about the possibility of having or developing one or more serious progressive or life-threatening diseases, accompanied by hypervigilance to and catastrophic misinterpretation of bodily signs or symptoms, including normal or commonplace sensations, resulting in both avoidance and reassurance-seeking behaviors, persisting or reoccurring despite medical evaluation and reassurance. The definition shows considerable overlap with anxiety disorders and OCD. Classification among the OCD, with cross-linkage to the anxiety disorders, could improve the recognition of the disorder and encourage the use of appropriate treatments within the broad range of global health care settings. We also propose that an insight specifier be applicable for hypochondriasis, as with OCD and body dysmorphic disorder, based on the common clinical features of these disorders and the relevance of the level of insight for treatment planning.

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