

## Cognitive and perceptual variables in hypochondriasis and health anxiety: A systematic review<sup>☆</sup>

David K. Marcus<sup>a,\*</sup>, Jessica R. Gurley<sup>b</sup>, Melynda M. Marchi<sup>b</sup>, Craig Bauer<sup>b</sup>

<sup>a</sup> Department of Psychology, University of Southern Mississippi, 118 College Dr. #5025, Hattiesburg, MS 39406-5025, United States  
<sup>b</sup> Sam Houston State University, United States

Received 8 August 2005; received in revised form 12 September 2006; accepted 21 September 2006

---

### Abstract

This review examined (a) whether hypochondriacal/health-anxious individuals hold distinct assumptions about health and illness, (b) if triggering these assumptions leads to increased hypochondriacal concerns, and (c) whether these individuals perceive their bodily sensations differently from others (i.e., experience greater somatosensory amplification). There was clear evidence that health anxiety is related dysfunctional health-related beliefs. Few studies have examined how hypochondriacal concerns are triggered, and inconsistent results emerged from those that have. Health anxiety is also associated with self-reported higher levels of somatosensory amplification. However, there was little evidence that individuals high in health anxiety are actually more accurate perceivers of their own autonomic processes. Although the results generally supported the central tenets of the cognitive-behavioral model of hypochondriasis and health anxiety, further research will be necessary to determine whether these beliefs are specific to hypochondriasis and to identify any cognitive processes that may be unique to hypochondriasis.  
© 2006 Elsevier Ltd. All rights reserved.

*Keywords:* Hypochondriasis; Health Anxiety; Cognitive-behavioral; Meta-analysis

---

Although there has been a long history of motivational and psychodynamic theories of hypochondriasis (e.g., Fenichel, 1945; Lipsitt, 1973; Rosenfeld, 1958), most recent models of hypochondriasis and health anxiety<sup>1</sup> emphasize cognitive and perceptual factors. As Williams (2004) observed, “cognitive models have been the predominant recent approach to the understanding and treatment of health anxiety and hypochondriasis” (p. 632). Most notably, Salkovskis and Warwick (1986, 2001; Warwick & Salkovskis, 1990) have developed a cognitive-behavioral model of hypochondriasis and health anxiety that is closely related to Clark’s (1986) and Barlow’s (2002) models of panic disorder. According to Salkovskis and Warwick’s model, dysfunctional assumptions and beliefs about (a) the prevalence and communicability of severe illnesses, (b) the meaning of bodily symptoms, and (c) the course and treatment of illnesses all serve as risk factors for hypochondriasis and health anxiety. Although these beliefs may remain latent, they can be activated by a variety of events, including reading about an illness, hearing about the illness of an acquaintance, illness-related media reports (e.g., news stories about avian flu, SARS, or AIDS), or by various

---

<sup>☆</sup> We wish to thank Laura Guy and Rowland Miller for providing helpful comments on an earlier draft.

\* Corresponding author.

<sup>1</sup> Throughout the manuscript, hypochondriasis refers specifically to the clinical syndrome, whereas health anxiety refers to full range of dysfunctional health concerns. However, hypochondriacal as an adjective may be used to refer to any excessive illness concerns.

bodily alterations or sensations (e.g., a blemish, a headache). Once triggered, these beliefs result in automatic hypochondriacal thoughts that are specifically self-focused. As a result the person becomes increasingly anxious and hypervigilant for any sensations or signs that could be indicative of the disorder. Bodily sensations are then filtered through a confirmatory bias that exaggerates any evidence of illness. Barsky (1992, 2001; Barsky & Klerman, 1983) has proposed a similar approach to understanding hypochondriasis, but he places a greater emphasis on the premise that hypochondriacal individuals are more sensitive to and aware of bodily sensations and that this “somatosensory amplification” serves as a risk factor for hypochondriasis. Most recently, Taylor and Asmundson (2004) have integrated cognitive factors (including dysfunctional beliefs and selective memory), attentional factors, and somatosensory amplification into an integrated model of health anxiety.

To exemplify this cognitive-behavioral approach we consider “Ann.” Ann may hold the dysfunctional beliefs that any unexplained bodily sensations must be indicative of a catastrophic illness, and if illnesses are not identified and treated immediately, they are likely to be fatal. If Ann sees a movie in which one of the characters complains about a headache and is later diagnosed with a brain tumor, the movie may activate these beliefs. Once such beliefs are activated, Ann is likely to be especially attentive to any indications that her head hurts. Because of a premorbid tendency toward somatosensory amplification, she may be especially sensitive to any pain sensations that others might not notice. When she feels her head ache, Ann is then likely to make catastrophic interpretations and discount more benign interpretations (e.g., tension). The anxiety resulting from these catastrophic interpretations may lead to behavioral and somatic changes that further confirm Ann’s fears. For example, because of her worry and anxiety about being sick, Ann may have difficulty sleeping, and this sleeplessness may then result in additional headaches, supporting her belief that she has a brain tumor.

A number of studies have directly examined aspects of this model, and other health anxiety studies, although not direct tests, have also yielded relevant results. It is possible to dismantle the model and ask (a) whether there is evidence that health-anxious individuals hold dysfunctional assumptions about health and illness or think about health-related issues differently from how others think about these issues, (b) if triggering these assumptions leads to increased vigilance, concerns, and anxiety, and (c) if health-anxious individuals perceive their bodily sensations differently from others? The aims of this review are (a) to examine which aspects of the models have been subjected to empirical test, (b) to meta-analyze the results of these studies to determine the magnitude of the support for the model (for those aspects that have generated sufficient research) and (c) to examine moderators that may explain the variability among studies (if such variability exists). The results of this review may lead to refinements in the model and may guide future research by identifying aspects of the model that have been understudied.

## 1. Dysfunctional assumptions and cognitive processes

Central to Salkovskis and Warwick’s model is the proposition that health-anxious individuals hold dysfunctional medical and illness-related beliefs. Typically, researchers have examined this aspect of the model by providing respondents with ambiguous symptoms and asking them either to indicate which illness they would assume they had if they experienced the symptom or to estimate the likelihood that such symptoms are indicative of a catastrophic illness. For example, Hitchcock and Mathews (1992) found that college students higher in health anxiety, as measured by the Illness Attitudes Scale (IAS; Kellner, Abbott, Winslow, & Pathak, 1987), were more likely to interpret bodily sensations (e.g., “your chest feels tight and you find yourself sweating and flushed,” p. 225) as indicative of catastrophic illness (e.g., having a heart attack) than were students who scored lower on the IAS. Marcus (1999) found that among college students, IAS scores positively correlated with estimates of the likelihood that ambiguous symptoms (e.g., headache) were indicative of serious illnesses (e.g., brain tumor). Patients diagnosed with hypochondriasis identify more physical symptoms as indicating that a person is “not healthy” than do medical patients who do not have hypochondriasis (Barsky, Coeytaux, Remy, Sarnie, & Cleary, 1993).

Although these studies, in which participants reported their beliefs and assumptions about symptoms and illnesses, bear most directly on the dysfunctional assumption component of the cognitive-behavioral model of health anxiety, studies that have used indirect methods to examine cognitive processes in health anxiety may also have some relevance to this aspect of the model. For example, Owens, Asmundson, Hadjistavropoulos, and Owens (2004) found that individuals higher in health anxiety displayed greater interference on a modified Stroop test to illness-related words; moreover, this interference was specific to illness-related words. Medical patients with hypochondriasis also recall more pain-related words (e.g., stinging, burning) than do other medical patients, and again, this memory bias is specific to pain (Pauli & Alpers, 2002).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات