Health anxiety and hypochondriasis: Description and treatment issues highlighted through a case illustration

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Health anxiety and hypochondriasis are serious and debilitating conditions that are poorly understood by health care providers and general public. This is so partly because of the derogatory use of the term hypochondriasis by the general public. There has been a push by mental health professionals in recent years to use the term health anxiety and to use hypochondriasis only for its extreme form. The Internet has become a popular medium, through Web sites and chat rooms, for patients to seek information, reassurance, and exchange of medical information, sometimes of limited veracity. The term cyberchondria has even been coined to describe this phenomenon. The authors review the research literature related to health anxiety and discuss the beneficial treatments of CBT and pharmacology. The utilization of intensive cognitive-behavioral therapy is highlighted with a case illustration. (Bulletin of the Menninger Clinic, 74[2], 122-140)

Hypochondriasis is characterized by a fear or belief, based on misinterpretations of bodily sensations, that one has a serious illness. This belief is not swayed by reasonable and appropriate medical reassurance that no medical condition is present. According to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV-TR*; American Psychiatric Association [APA], 2000), hypochondriasis is diagnosed when these beliefs have been present for at least

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6 months, are not the result of delusional thinking or other psychiatric disorders, and create significant distress in a person's life. A coexisting medical illness may be present, but the concerns and preoccupations are disproportionate to the gravity of a diagnosed illness. The lifetime prevalence of hypochondriasis is between 1% and 5% of the general population (APA, 2000) and occurs equally in men and women. It is present in 4% to 6% of general medical outpatients, and its prevalence is not specific to any particular socioeconomic group (Taylor & Asmundson, 2004). Coexisting psychiatric conditions, including depression, panic disorder, and generalized anxiety disorder, are present in approximately two-thirds of patients with hypochondriasis (Barsky, 2001). Somatizing patients utilize outpatient services almost twice as often as comparable nonsomatizing patients in primary care settings (Barsky, Ettner, Horsky, & Bates (2001).

Hypochondriasis belongs to the somatoform class of disorders along with somatization disorder, undifferentiated somatization disorder, pain disorder, conversion disorder, and body dysmorphic disorder (APA, 2000). The commonality for most of the diagnoses in this group is distress from persistent bodily symptoms that cannot be explained medically. An exception is body dysmorphic disorder (BDD), which is an excessive preoccupation with an imagined defect in appearance. BDD differs from other disorders in this class since patients with BDD do not focus primarily on unexplained illness, and BDD has been discussed alternatively as more related to obsessive-compulsive disorder. However, the intense bodily focus of a person with BDD is a common link with the other somatoform disorders (Phillips, 2001).

Description

Diagnosis

Patients struggling with somatoform disorders are typically first encountered not by mental health practitioners, but in physical medicine settings. When patients are faced with serious physical symptoms that cannot be adequately explained, the high level of distress can motivate patients to seek repeated evaluations and treatments that are often unnecessary and perhaps even danger-

ous or harmful. Referrals are made to various specialists, which frequently result in more uncertainty or in an initially promising solution that turns into another dead-end treatment. When the physician is unable to find a cause for a patient's complaints, the focus of their interactions often becomes one of containment of the help-seeking behaviors, which can lead to erosion of the doctor-patient relationship (Looper & Kirmayer, 2002), following which the patient either leaves the doctor's practice or the doctor terminates the care delivery. In an effort to find explanations, patients suffering with unexplained physical symptoms may get into a pattern of "doctor shopping," moving from doctor to doctor in an effort to find an answer. Often a frustration with the medical community will prompt these patients to investigate symptoms on their own through medical books, television programs, the Internet, and other means. The Internet has become a popular medium for the exchange of medical information, sometimes of limited veracity, through Web sites and chat rooms. The term *cyberchondria* has recently been coined to describe this phenomenon (Taylor & Asmundson, 2004). Moreover, patients may turn to alternative medical practitioners or "new age" treatments. Unfortunately, many patients with unexplained physical symptoms feel misunderstood and invalidated; their quest for a solution to their problems often becomes less important than vindication that something is truly physically wrong.

In primary care or medical settings, the diagnosis of a somatoform disorder is usually made after ruling out known medical disorders. When a diagnosis cannot be reached, a psychiatric referral is sometimes the next step. Patients in this position often believe that they are being told that their distress is "all in their head" or that they are making up their symptoms. Earlier diagnosis is difficult because the physician's primary task is to diagnose or confirm what is physically wrong, not to diagnose a psychiatric disorder. Furthermore, many physicians are unfamiliar with the diagnostic criteria, and patients are usually averse to the idea that there is nothing physically wrong with them. In addition, the diagnostic criteria for somatoform disorders have been criticized as being too restrictive or excessively overlapping (Fink et al., 2004; Looper & Kirmayer, 2002). In the case of hypochondriasis, the DSM-IV-TR

requires that a diagnosis be given only if preoccupation about an illness persists despite appropriate medical evaluation and reassurance (APA, 2000). This criterion is subjective, and the demarcation between appropriate and inappropriate medical evaluation will differ between patient and doctor. Moreover, many illnesses develop slowly over time (e.g., multiple sclerosis), and some medical illnesses themselves are difficult to diagnose as a result of ambiguous diagnostic criteria. In addition, there is a great deal of overlap between health worries and anxiety disorders, including generalized anxiety disorder, panic disorder, and obsessive-compulsive disorder (Marcus, Gurley, Marchi, & Bauer, 2007). Furthermore, there is considerable ambiguity between the diagnosis of delusional disorder, somatic type, and hypochondriasis. The *DSM-IV-TR* criteria state that hypochondriasis involves the "preoccupation with fears of having or that one has, a serious disease based on the person's misinterpretation of bodily symptoms" (APA, 2000, p. 224). Similarly, delusional disorder, somatic type, is classified as a delusion in which the person "has some physical defect or general medical defect" (p. 329). Thus, it is hard to discriminate between a person with a delusional belief that he or she has a medical illness and a person who has a fear that he or she actually has a medical illness.

Because of the difficulty in reaching the diagnosis, there has been a push in recent years to use the term *health anxiety*, with hypochondriasis being its extreme form. The term *health anxiety* also includes: (1) abridged hypochondriasis, in which not all the conditions of full-blown hypochondriasis are present; (2) disease phobia, in which a person fears contracting a specific illness much in the same way a person fears snakes or spiders; (3) somatic delusions, in which a person's belief is so extreme that despite overwhelming evidence to the contrary, the belief continues to be held (e.g., belief that one's skin is infested with bugs or that a terribly foul odor is being emitted from one's body) (Taylor & Asmundson, 2004). Categorizing these problems as variations of health anxiety disorder seems useful given the terrible anxiety patients feel when they are struggling with these issues. In addition, the term *health anxiety* may create distance from the negative connotations that are as-

sociated with use of the term *hypochondriasis* (e.g., "He's a real hypochondriac").

Patients suffering from hypochondriasis experience a great deal of anxiety. This anxiety can be triggered in a myriad of ways, such as watching a television program about health-related topics or receiving news that a family friend has died of a heart attack. The thoughts underlying the anxious reaction are likely to be similar to, "What if that happened to me?" or "Maybe that is what is wrong with me." As previously mentioned, television and the Internet as well as other media are rich sources of information and misinformation for patients with health anxiety and hypochondriasis. Internally, a person's anxiety can be triggered by his or her interpretation of bodily sensations. The human body is often considered "noisy." A healthy body contains "noises" in the form of gurgles, twitches, aches, tensions, itches, and so forth (Taylor & Asmundson, 2004). Sufferers of health anxiety and hypochondriasis may misinterpret these "noises" and other normal variations in functioning, such as energy levels, memory, or digestive processes, as signs of serious illness. A stream of associated catastrophic thoughts may ensue, accompanied by an increase in anxiety and physiological arousal, leading the body to make more "noise." The misinterpretation of ambiguous and unexplained situations as being more foreboding than they actually are has long been known to be a major underlying factor in serious anxiety problems (Beck, Emery, & Greenberg, 2005). In people with health anxiety, threats from physically uncomfortable bodily sensations are likely to be misinterpreted as signs of serious illness. Through repeated misinterpretations and increasing anxious arousal, a patient's belief that he or she may be acquiring or already has a serious illness becomes more fixed and troubling. A patient with a serious illness belief will begin to seek reassurance not only from the medical community also but from friends, family, and the media that he or she is physically healthy or that there is actually a physical illness present. Unfortunately, for patients with extreme health anxiety and hypochondriasis, the reassurance lasts for only a very short time or not at all (Salkovskis & Warwick, 2001).

The experience of reassurance seeking in health anxiety and hypochondriasis is similar to OCD and other anxiety disorders in that it serves to reinforce the fear, particularly if reassurance temporarily reduces anxiety. Ironically, as patients' fears intensify, they will often not only seek reassurance that they are okay, but they will also seek confirmation that there is something physically wrong. This is particularly true of patients who are convinced that there is something dreadfully wrong and who have put a considerable investment into being "sick."

Overlap with OCD and other Anxiety Disorders

Patients with hypochondriasis have some features in common with OCD. The ruminations and preoccupations in hypochondriasis are similar to obsessions in their intrusiveness, persistence, and ability to increase anxious arousal. Safety-seeking behaviors associated with health anxiety, including excessive checking (e.g., bodily symptoms, medical information sources) and reassurance seeking, are similar in form and function to rituals in OCD. Patients with health anxiety experience quick reductions in anxiety by performing safety-behaviors, which in turn negatively reinforce the safety-seeking behaviors. Additionally, refraining from safety behaviors is associated with a reduction of anxiety but over a more graduated time period. Dysfunctional beliefs, such as the overestimation of threat and the intolerance of uncertainty, are commonly associated with OCD and related anxiety disorders as well as hypochondriasis (Olatunji, Deacon, & Abramowitz, 2009).

However, hypochondriasis and OCD differ in significant ways. First, the preoccupations and concerns in hypochondriasis are experienced as sensible and rational, whereas most patients with OCD see their obsessions as senseless and irrational. People with OCD expend a great deal of effort to keep their obsessive thoughts out of awareness. OCD symptoms are also often regarded with shame and kept secret, while the symptoms of hypochondriasis are typically well known to others. A great effort is often expended to convince others that symptoms are real and/or that there is a yet to be discovered medical explanation for the physical symptoms (Barsky, 1992).

Hypochondriasis and panic disorder also share important commonalities. Patients with both disorders are hypervigilant to harmless, arousal-producing body sensations and misattribute these to physical conditions. In panic disorder, however, the somatic fears tend to be episodic rather than continuous as in hypochondriasis. The fears of illness occur during discrete periods of panic symptoms that have a quick onset and dissipate over a few minutes. Moreover, a patient's major concern in panic disorder is the occurrence of future attacks as opposed to the persistent fears of illness (Hiller, Leibbrand, Rief, & Fichter, 2005).

Hypochondriasis and the "Sick Role"

Sick role and abnormal illness behavior tends to maintain health anxiety and hypochondriasis. Ineffective methods of coping, such as reassurance seeking, checking for body signs of illness and dysfunction, as well as avoiding desired and necessary behaviors, make patients feel better in the short term (Bleichard, Timmer, & Rief, 2005). This temporary anxiety reduction negatively reinforces the illness and sick role behaviors. Hypochondriasis and health anxiety are characterized by cognitive and behavioral avoidance that reinforces illness fears, dysfunctional beliefs, and attentional biases. These fears and beliefs influence maladaptive interpretations of bodily signals, amplify symptoms, and foster ineffective responses to life stress that are either directly or indirectly linked to health fears and illness behaviors (Avia & Ruiz, 2005).

Maintenance of sick role behaviors and repetitive, inappropriate reassurance does not allow a patient with health anxiety to process new information that may disconfirm his or her fear beliefs and assumptions (Taylor & Asmundson, 2004). Patients can find themselves in a "sick" role through a variety of factors. When physical discomfort becomes so intense that patients begin to avoid responsibilities, they are prone to fall into a cyclical pattern of maladaptive illness behaviors. Family members, friends, and coworkers may inadvertently reinforce these behaviors by covering responsibilities and canceling patients' activities. In addition, avoidance of strenuous activities can lead to a state of *physical deconditioning,* which may produce further noisy body symptoms. Ironically, pa-

tients with severe health anxiety and hypochondriasis often have poor health habits, such as smoking, poor diet, and little or no exercise. These unhealthy behaviors are aimed at short-term anxiety reduction, but unfortunately they may inhibit the gathering of disconfirming evidence to counter the longer term maladaptive illness beliefs. These unhealthy behaviors may lead to a lessened sense of physical well-being, thus further reinforcing the sick role.

The beliefs and assumptions that maintain health anxiety and the sick role can be influenced in a multitude of other ways as well. Family attitudes toward illness, prior experience with illness personally or observed in others, and cultural background or negative information about the medical community can influence beliefs and lead to maladaptive health "rules." For instance, the patient may create rules such as "any body sensation has to have an explanation," or "every uncomfortable physical feeling must be a sign of serious illness," or possibly "being normal is being totally free of discomfort" (Salkovskis & Warwick, 2001, p. 206). Patients whose beliefs represent these kinds of rules find themselves setting ineffective goals that are based on a physical or mental feeling rather than effective behavioral goals. Patients may be prone to miss work, for example, because of stomach pain, even though it is likely that their stomach will hurt at home as well. Reduced activities that allow for increased time to worry and ruminate and increase experiences of anxiety, guilt, shame, and anger may further exacerbate the sick role.

Treatment

Cognitive-Behavioral Treatment (CBT)

CBT and related interventions are effective in treating health anxiety and hypochondriasis. Specific components of CBT include psychoeducation, exposure and response prevention, and stress management. Clark and Salkovskis (Clark et al., 1998) and their colleagues conducted the first large-scale, randomized, controlled study that found both CBT and stress management more effective for treating hypochondriasis than a list control. Barsky and Ahern (2004) reported similar findings in a large, randomized, controlled trial

of CBT for hypochondriasis in which a largely psychoeducational approach targeted the amplification of benign bodily symptoms, faulty health and disease beliefs, and maladaptive illness behaviors. In another smaller controlled study, patients with hypochondriasis and multiple somatoform symptoms were compared to patients with somatic symptoms only; CBT was equally effective for both groups (Bleichard et al., 2005). Bouman and Visser (1998; Visser & Bouman, 2001) conducted two studies that compared cognitive therapy to behavior therapy with exposure methods. Both treatments were equally effective relative to wait-list controls.

The primary task facing the therapist treating a patient with health anxiety is to make these treatments acceptable to the patient and help the patient consider that his or her health worries, ruminations, obsessional thinking, and illness behaviors may be as much a source of the patient's difficulties as the physical discomfort or undiagnosed medical illness. When a patient enters a specialized clinic that utilizes CBT (such as the Houston OCD Treatment Program), the first step is to complete a psychiatric and medical assessment. No matter how thorough, this assessment is often experienced as not comprehensive enough because patients with health anxiety and hypochondriasis tend to be overinclusive in the information provided. Patients believe, for example, that if they could only be clearer or more thorough, then a solution to their difficulties could be found. The belief that the assessment is too brief can seriously hinder the formation of the necessary therapeutic alliance. In addition, the therapist, like previous health care professionals, can easily get mired down in the minutiae of the patient's symptoms. A therapist needs to begin by fostering trust with the patient by showing empathy and understanding for the patient's problems. The therapist provides the assurance that even though the psychological aspects are going to be explored, the patient's physical health will not be neglected. Additional assurance should be given that any physical discomfort will be taken seriously. Many patients feel accused that their complaints are "all in their head" or that they are merely imagining their symptoms. Purely medical approaches in the past have failed for these patients, and it is likely that an overly aggressive psychological approach may be doomed for failure as well (Lautenbacher & Rollman, 1999).

Through the assessment process the therapist will gain a better perspective of the patient's experience. Whether a patient fears getting a disease, fears that he or she already has a disease, or is convinced that she or he has a disease greatly influences the treatment planning. It is important to identify the patient's beliefs, assumptions, and behavior patterns involving her or his health and illness concerns. Family members can be interviewed to get other perspectives on the patient's struggles. Self-monitoring also can be used to gather information. The patient is instructed to keep written track of when symptoms occur, what the thoughts were at that time, a description of the emotional experience, and what the behaviors were.

An initial stage in the treatment for health anxiety and hypochondriasis is psychoeducation. Mild forms of the problem may be helped with psychoeducation alone, such as learning real and appropriate medical facts and the role of stress (Taylor & Asmundson, 2004). Many health anxious patients, particularly those who are disease phobic, are woefully underinformed about health and illness. Psychoeducation also can involve providing information about the connection between thoughts and beliefs in anxiety and other emotional experiences, the misinterpretation of noisy body sensations, the role of selective attention in amplifying symptoms, and how various forms of checking and reassurance seeking are factors in maintaining health anxiety. In addition, the role that stress and loss play in physical problems can also be explained as well as the consequences of falling into the "sick role."

Through group and individual sessions, patients are encouraged to challenge their prevailing beliefs and assumptions. Initially, patients are asked to at least consider a new, competing hypothesis that psychological factors can account for at least some of their physical discomfort and that firmly held beliefs that there is something medically wrong may not be absolute facts. Since patients have been struggling with trying to find medical answers, in some cases for several frustrating years, they may be ready for a new strategy. Patients are then asked to begin challenging their thoughts and behaviors, generating more adaptive thought patterns, and engaging in more useful activities. Patients will be asked to generate evidence for and against the possibility that they have a diagnos-

able medical illness. The evidence itself may be in need of critical scrutiny, and further challenges may need to be made. The patient could be asked the following questions: "How do you know your assumption is true?" "What other assumptions could be true?" "What would you do if it were true?" These questions can be useful in helping to generate more effective and adaptive responses. There are a variety of other CBT techniques that help patients reframe ineffective thoughts into healthy and more productive ways of looking at things (see Salkovskis & Warwick, 2001; Taylor & Asmundson, 2004).

Exposure and response prevention (E-RP) is used in a similar fashion as with OCD. The process of E-RP exposes patients to increasingly stressful triggers and helps them prevent safety behavior or ritual-like responses. During exposure to triggers, patients' distress (usually anxiety) will increase dramatically. Without the safety behaviors (e.g., escape, avoidance, checking, reassurance seeking) to reduce distress, patients learn that they *habituate* to their distress over time. Through habituation, patients find a new source of information that begins to disconfirm their beliefs that a catastrophic result will occur if they face a feared situation while relinquishing their safety behaviors. They will also start to accumulate evidence that disconfirms their beliefs in their inability to tolerate negative emotional states. Patients develop a hierarchy of fears through which they will work up to challenging themselves to habituate to their most feared situations. When it is difficult to arrange actual feared situations, an imaginal exposure can be set up through repeatedly writing out fears or listening to a recorded message that describes the fear until habituation occurs.

Another component of CBT for hypochondriasis is the behavioral experiment. In a behavioral experiment, the patient and the therapist agree to a set of behaviors or a goal, after which the results will be analyzed to determine what has been learned. For instance, a patient who fears having a heart attack may be asked to exercise for 10 minutes then record how many times he checks his pulse the rest of the day. In the same situation, a behavioral experiment could be used to help the patient gather disconfirming evidence that a heart attack will occur if he exercises and does not check his pulse. Behavioral experiments can be short exercises

(e.g., asking the patient to hold his breath to increase heart rate) or maybe of longer duration (e.g., negotiating with patient to not take his blood pressure for 1 week). The patient and the therapist should assess each behavioral experiment to determine what was learned and what further experiments need to be conducted.

In addition to CBT, family therapy, relapse prevention, and stress management can be helpful in getting patients out of the sick role. Families need to learn, for example, how to give reassurance without reinforcing obsessive ruminations and dysfunctional behaviors. Family therapy also can be an essential part of relapse prevention to support patients in maintaining treatment gains. In many cases, it can be beneficial to work with the primary physician whether the physician is a psychiatrist, a family doctor or a specialist who is well informed and understanding of the patient's health anxiety in helping a patient in recovery make good decisions about future health care. For instance, a patient may make a contract not to seek further evaluation or treatment without a collaborative decision with the designated medical professional. The designated professional will help a patient contain the excessive seeking of unnecessary and expensive medical tests and specialty consultations. This must be a person with whom the patient has a trusted relationship and has agreed in advance to accept reasonable and appropriate medical reassurance despite thoughts and feelings to the contrary. Regular appointments for a period of time with this trusted professional to help reduce "doctor shopping" and excessive reassurance seeking from friends and family might be warranted. Since symptoms of health anxiety and hypochondriasis often increase in difficult times, stress management can be a useful auxiliary to patient recovery. Components of a stress management program will typically consist of self-monitoring of stressful situations and reactions, increasing problem-solving skills, and applied relaxation.

Pharmacological Treatments

Several antidepressants have been studied for effectiveness in treating health anxiety and hypochondriasis. Medications with demonstrated efficacy include the tricyclic medications clomipramine and imipramine, and three SSRIs: fluoxetine, fluvoxamine, and paroxetine (Fallon, 2004). Precisely why these medications work on

health anxiety and hypochondriasis is speculative. A reasonable assumption is that the antianxiety and antidepressant effects of these medications are effective for reducing the amplification of bodily symptoms. SSRIs also help with pain syndromes in patients who do not have reported anxiety and depression (Taylor & Asmundson, 2004).

There are pitfalls, however, to using pharmacotherapy in treating patients with health anxiety and hypochondriasis. Because no medication works for everyone in the same way, there is some trial and error in the process, as is the case with most psychiatric problems. This trial-and-error aspect can be troubling to patients with health anxiety because they can often be impatient and want to switch medications frequently. In addition, some patients' health anxiety is related to past side effects from previous medication trials. The phenomenon of the "nocebo effect" which is the opposite of the placebo effect, is frequently encountered in all forms of the pharmacological treatment of patients with health anxiety and hypochondriasis. The nocebo effect is experienced when a patient expects to experience negative side effects, similar to a self-fulfilling prophecy (Barsky, Saintforth, Rogers, & Borus, 2002). As a result, a medication may be prescribed in an effort to give relief to a patient, but the potentially unfortunate result is an increase in more distressing symptoms that generate more problematic self-focused rumination and worry.

Case Illustration

The patient is a 20-year-old, single, unemployed man who lives with his parents and younger sibling. He quit school when he was in the 10th grade due to depression and anxiety. At the time of admission to The Menninger Clinic, the patient was diagnosed with hypochondriasis, panic disorder with agoraphobia, and generalized anxiety disorder. The patient also presented with avoidant and dependent personality traits. He had been in psychiatric treatment since he was 15. The focus of this treatment had been on his personality traits and depression, with the assumption that his health anxiety and panic would abate if his dependency on his family could be resolved. His health anxiety primarily concerned a fear of dying of a heart attack. His fear grew more intense when he

had thoughts and worries that he would die alone and helpless. The patient's lesser fears involved stomach distress (he was under treatment for gastroesophageal reflux disease at the time of admission) and developing some type of disorder that would cause him to go blind. He had worked in the family business with his father but was unable to do so as his condition worsened. His social and recreational life, which had been reasonably active when he was younger, was now severely limited.

The patient had developed a number of safety and avoidance behaviors to neutralize health fears and reduce anxiety. He avoided any strenuous activities that might raise his heart rate because an elevated heart rate signaled cardiac arrest. He avoided being alone and made sure that someone was available for him to call by cell phone at all times. If he needed to drive somewhere by himself, he would be in constant contact via cell phone with a family member or a friend. If no one was available to be on the phone, he would not drive. The patient checked his pulse dozens of times per day and monitored his blood pressure with a home sphygmomanometer. He had visited various emergency rooms more than 500 hundreds times in the span of 4 years, piling up thousands of dollars in hospital costs. He had accumulated stacks of bills from numerous visits to doctors' offices and incurred costs of medications that his health insurance was no longer covering. The patient avoided spicy foods and kept a bland but unhealthy diet. Because of his fears of going blind, he wore sunglasses indoors to avoid fluorescent light. He compulsively sought reassurance from family members, which created significant tension in the home.

The patient entered the hospital seeking help with his anxiety. A case conceptualization was built with the help of the patient. He was asked to consider two explanations of his condition. The first was his own explanation that he was imminently vulnerable to catastrophic illness and death and that his current coping methods would be effective in protecting him from his fears. The alternative version hypothesized that he suffered from health anxiety and hypochondriasis and, while his distress was real and troubling, his coping strategies were contributing to his distress and ruining the quality of his life. The patient agreed to entertain the latter hypothesis and build a treatment plan around it.

He began to examine his beliefs about illness and anxiety. He met regularly with a physician to be educated about his feared illness as well as about normal bodily functioning and "body noise." These meetings helped the patient practice accepting reasonable medical reassurance. He agreed to limit his reassurance-seeking behavior and discussions of his health to short daily talks with a nurse. The patient committed to attending all groups and activities despite his high level of anxiety and body noise. This portion of the plan was intended to extricate him from his sick role and to help him become more aware of the reinforcing power of such behaviors. The patient had been told in earlier treatments that he was receiving "secondary gain" from his anxiety and that his symptoms were caused by a motivation to avoid the responsibilities of adult life and unwillingness to individuate from his parents. The patient reported that he felt confused as well as accused by these interpretations. He related that he desperately wanted to be more independent, and he was extremely frustrated that he was unable to do the things in life that mattered to him. The treatment team explained to the patient that, although fears of independence and separation-individuation problems were likely relevant, they would be less of a focus in this treatment. The primary focus would be on psychoeducation and CBT aimed at treating his health anxiety and hypochondriasis.

The patient associated anxiety with catastrophic illness and death. Since death and catastrophic illness should be avoided, it had become axiomatic for the patient to avoid anxiety. It was called to his attention that if he drove by himself from point A to point B, there was only a minute chance that he would die of a heart attack, but that there was a 100% chance that he would be anxious. The patient began to challenge and modify his beliefs about his anxious arousal. He reflected on alternative meanings for his anxious experience and learned that since he perceived anxious arousal to be the cardinal sign of impending disaster, his anxiety became the primary target of his efforts to control through avoidance and safety behaviors. Eventually, the patient was able to understand the bidirectional nature of his cognitions and anxiety; thoughts and images of illness produced anxiety but anxious arousal triggered such thoughts and images. For instance, when on a treadmill, he had fears of having a heart attack after just a few minutes of

semivigorous walking. Continued use of the treadmill helped the patient reinterpret his anxious arousal as the physiological arousal associated with exercise that, in fact, promotes health.

A simple E-RP intervention, including repeated sessions on the treadmill, provided the patient opportunities to reinterpret the meaning of the situational, internal, and somatic cues associated with his health anxiety and hypochondriasis. The patient developed a hierarchy of feared situations to guide his exposure therapy. The most intense of these exposures was driving home for the weekend, which was several hours away, without using his cell phone. The patient's progress was not linear. On an initial attempt at driving home, he found himself in the parking lot of a hospital emergency room midway to his destination, but he was able to resist the urge to go into the hospital.

Another important aspect of the patient's treatment was the use of acceptance and mindfulness. He was able to realize that his worries, ruminations, and obsessions functioned to give him the perception of safety and to protect him from feelings of vulnerability. Furthermore, he realized that his health fears kept him from things that mattered to him. The patient agreed to experiment with not challenging his automatic thoughts to determine whether they were true or false, but rather to see them as inevitable thoughts, or "noise," that were not functionally relevant to the task at hand. This perception removed the need to avoid thoughts and images, such as dying alone of a heart attack. He learned that he could take a nonjudgmental observational stance toward the thoughts and images that he previously believed he had to avoid. Likewise, the patient was able to practice experiencing anxiety in a nonjudgmental way through understanding that anxiety, although a useful source of information, was not a direct reflection of reality. Through imaginal and in vivo exposure activities, the patient practiced taking a mindful stance toward previously avoided cognitions and affective states while refraining from the maladaptive action tendencies that had been habitually associated with these states. The patient began to accept that he would feel anxious while participating in these novel activities and needed to reassess the meaning of his anxiety in a more functional way without attempting to exercise direct control over his anxiety. As a result, the patient's goals shifted from

the primary directive of setting and pursuing goals about avoiding feared cognitions and uncomfortable affective states, and he began to pursue activities that had more functional value for him.

As the patient approached his discharge after 8 weeks of treatment, he began to make aftercare plans. He had been participating in weekly family therapy, with aftercare and planning as a major part of this process. Early in family therapy, the parents and patient learned the deleterious effects of constantly giving reassurance to his health fears. The parents and patient agreed that the parents would refrain from answering health questions pertaining to the patient's health anxiety. The patient agreed to wait until his regular monthly visits with his family physician, who had been made aware of the patient's health anxiety and hypochondriasis, in order to review his health concerns. Furthermore, the family was able to set up a contract concerning daily schedules, work and educational plans, and a timeline that moved the patient toward increased independent functioning. Because of the increased knowledge of the patient's health anxiety and hypochondriasis and a better sense of direction for their son, the parents felt more confidence in helping him hold the line against sick role behaviors and reinforcing independent functioning.

Upon returning to his home community, the patient began group and individual CBT with a therapist experienced in the treatment of anxiety disorders. The patient was able to return to work part-time and eventually began school. At last follow-up, 10 months posttreatment, he continued to follow his aftercare plan, work, and attend school part-time.

To objectively measure this patient's progress, we also administered the Whitley Index. It is a 14-item, true or false measure that was developed by Pilowsky (1967) to measure health-related worries or the core features of hypochondriasis. Most studies conducted using this measure indicate good reliability and validity (Barsky et al., 1992; Pilowsky, 1967). The patient's scores on the Whitley Index decreased from 11 on admission to 5 at discharge. His depression levels were monitored with the Beck Depression Inventory, which significantly reduced from 38 to 14 (63%). A general measure of anxiety, the Penn State Worry Questionnaire (Miller, Miller, Metzger, & Borkevec, 1990) was administered pre- and posttreatment, showing a decrease from 73 to 42 (31%).

Conclusion

Health anxiety and hypochondriasis are serious and debilitating conditions that are poorly understood by the general public as well as by the medical and psychiatric community. More research into clarifying the diagnostic issues concerning hypochondriasis is essential. Although CBT and pharmacology have demonstrated effectiveness, the goal of treatment should focus not only on symptom relief but also on improving quality of life. Further investigation into effective treatments for health anxiety and hypochondriasis will help determine the mechanisms of change for the varied components of these conditions. Hypothetically, disease phobia should respond to treatments known to be effective in treating anxiety, while disease conviction should respond to interventions known to be effective in treating depression.

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