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Psychiatry and Primary Care

Recent epidemiologic studies have found that most patients with mental illness are seen exclusively in primary care medicine. These patients often present with medically unexplained somatic symptoms and utilize at least twice as many health care visits as controls. There has been an exponential growth in studies in this interface between primary care and psychiatry in the last 10 years. This special section, edited by **Wayne J. Katon, M.D.**, will publish informative research articles that address primary care-psychiatric issues.

DSM-IV Hypochondriasis in Primary Care

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Abstract: *The object of this study was to assess the prevalence and correlates of the DSM-IV diagnosis of hypochondriasis in a primary care setting. A large sample (N = 1456) of primary care users was given a structured interview to make diagnoses of mood, anxiety, and somatoform disorders and estimate levels of disability. The prevalence of hypochondriasis (DSM-IV) was about 3%. Patients with this disorder had higher levels of medically unexplained symptoms (abridged somatization) and were more impaired in their physical functioning than patients without the disorder. Of the various psychopathologies examined, major depressive syndromes were the most frequent among patients with hypochondriasis. Interestingly, unlike somatization disorder, hypochondriasis was not related to any demographic factor. Hypochondriasis is a relatively rare condition in primary care that is largely separable from somatization disorder but seems closely intertwined with the more severe depressive syndromes.* © 1998 Elsevier Science Inc.

Introduction

Hypochondriasis has been one of the most durable disease concepts in the history of psychopathology. Major elements of the disorder are disease conviction or fear of disease, bodily preoccupation, symptom amplification, and medically unexplained so-

matic symptoms [1,2]. The disorder entails significant distress and disability and often leads to the assumption of the "sick role," with frequent medical consultations that significantly add to the cost of medical care. The core concept has changed little throughout the years, but the specific criteria for diagnosing the disorder have been evolving in succeeding editions of the Diagnostic and Statistical Manual of the American Psychiatric Association and the International Classification of Diseases. Thus, the latest versions of these nomenclatures, DSM-IV [3] and ICD-10 [4], have significantly revised the criteria for hypochondriasis. Moreover, owing to the inclusion of relevant symptoms and probes, the diagnosis can now be elicited with a structured interview [5]. Studies on this disorder are important in view of its clinical relevance, "muddled" diagnostic status, and uncertain therapeutics. A focus on primary care is essential, since hypochondriacal patients have a tendency to use medical services in lieu of mental health ones, and therefore, often present to primary care settings [2].

Prevalence of Hypochondriasis

Little is known about the community prevalence of hypochondriasis, mainly because instruments previously utilized in large scale surveys generally did not assess it. In medical settings, prevalence rates of hypochondriasis as high as 10% have been suggested using crude, nonsystematic estimates [6]. Systematic studies using more rigid (operational) criteria have documented much lower rates (about 2% or lower) [7]. In recent years, the systematic

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study of hypochondriasis has been facilitated by the development of the Composite International Diagnostic Interview (CIDI) [5], a structured diagnostic instrument that incorporates the necessary items to elicit symptoms and correlates of DSM-IV and ICD-10 hypochondriasis. A study coordinated by the World Health Organization (WHO) that used the CIDI on a large “general health care” sample in 15 centers worldwide reported a prevalence rate of hypochondriasis of 0.8%, defined according to the ICD-10 criteria (Utsun, unpublished manuscript).

Present Study

In this paper, we examine the prevalence and correlates of DSM-IV Hypochondriasis in primary care. Our data come from a large study recently completed at a University-affiliated clinic that performed a psychiatric assessment on a large sample of patients seeking medical services by administering a structured diagnostic interview.

Method

The sample consisted of 1456 new patients, ages 18–66 years, who sought primary care services at a University-affiliated outpatient clinic (North Orange County Community Clinic) located in Anaheim, California. Following completion of informed consent procedures, and in temporal proximity with their clinical examination by a physician, the patients participated in a structured interview administered by trained bilingual interviewers that included detailed questions on general demographics, psychopathology, and physical functioning. Fifty percent (50%) of those patients initially approached for the study agreed to participate. A brief review of the records revealed no significant demographic differences or salient differences in medical status between study participants and those who declined participation, except for level of education. Those who agreed to participate had on average 1 more year of education than those who did not.

Measures

Psychopathology. Assessment of psychopathology was made with the Composite International Diagnostic Interview (CIDI) [5]. Diagnoses included somatization disorder, hypochondriasis, generalized anxiety, panic, simple phobia, dysthy-

mia, and major depression, including melancholic subtypes.

Disability. We used the “physical functioning” dimension of the RAND-MOS Short Form Health Survey (SF-36) [9] as a measure of disability. Total scores in this dimension range between 10 (severe disability) and 30 (no disability).

Bilingual (Spanish/English) research interviewers were trained in the use of the CIDI, adhering to the official CIDI training guidelines as done at the United States training site located in the Department of Psychiatry at Washington University in St. Louis. All instruments were translated, pretested, and adapted for use with Spanish speaking subjects.

CIDI Somatization Disorders Section. The CIDI has 41 items that elicit somatic symptoms. Forty of these items assess specific physical symptoms and the remaining one inquires about being “sickly most of the lifetime.” We grouped the 40 individual symptoms into eight specific organ/body systems as follows: pseudoneurologic (15 symptoms); gastrointestinal (7 symptoms); musculoskeletal (4 symptoms); genitourinary (4 symptoms); female-reproductive (4 symptoms); cardiorespiratory (3 symptoms); headache and other pain (2 symptoms), and skin (1 symptom).

Following the standard probing system in the CIDI, symptoms were scored as “present” if they met severity criteria and remained medically unexplained after detailed questioning. For example, if the respondent answered “yes” to the question “have you ever had chest pain?”, the interviewer proceeded with a specific set of questions to determine symptom severity that included probes regarding physician visits, medication intake, or significant interference with daily life or functioning. If these criteria were met, the interviewer asked about the physician’s diagnosis and probed whether the symptom was ever due to physical illness or injury, or followed the use of medications, drugs, or alcohol. If these inquiries proved negative for medical explanations, the symptom was scored as a positive somatization symptom. Obviously, the four female reproductive items were skipped in the case of male patients. Thus, there were only 37 symptoms applicable to males.

DSM-IV Hypochondriasis

Four items in the CIDI (C-52–C-56) tap the essential features of hypochondriasis as defined in DSM-IV.

For example, one item (C-52) asks respondents about preoccupation or fears of having a serious disease (DSM-IV Criterion A); two other items (C-55 and C-56) address whether such preoccupation persists after medical reassurance (DSM-IV Criterion B) and causes significant distress in various functional areas (DSM-IV Criterion D), and another item (C-52) queries whether symptoms had a duration of at least 6 months (DSM-IV Criterion E). The remaining criterion in DSM-IV hypochondriasis, “Criterion C”—“symptom not of psychotic proportions or restricted to physical appearance”—could not be fully assessed with this data set. For a “definite” DSM-IV diagnosis of hypochondriasis we required that the patient met Criteria A, B, D, and E (e.g., gave positive answers to CIDI items C52, C54, and either C55 or C56, indicating that symptoms were present).

DSM-IV Somatization Disorder (SD). For diagnosing SD, DSM-IV criteria require the presence of at least eight symptoms starting before the age of 30 years. Symptoms should come from at least four different symptom groups (four pain, two gastrointestinal, one pseudoneurologic, and one sexual symptom). Because the sexual symptoms included among the CIDI somatization items apply only to females, we estimated the prevalence of DSM-IV somatization disorder diagnosis with and without the sexual symptoms.

Abridged Somatization [10]. To meet criteria for this category, we required at least four symptoms for males and six symptoms for females scored as meeting criteria out of the 40 individual somatic symptoms listed in CIDI.

Health-Related Attitudes. Additional items in the section on somatoform disorders in the CIDI elicit other aspects of hypochondriasis and somatization disorder such as overuse of medical care (C55, C56), lack of satisfaction with medical care, and disagreement with the physician (C49, C50, C57, C58). Some of these items are needed to make ICD-10 diagnoses of hypochondriasis and somatization disorder.

Statistical Analyses

The major goals of these analyses were to seek correlates and “risk” or “protective” factors for hypochondriasis. The statistical analyses reported in this paper involve the cross-tabulation of the binary

“hypochondriasis” variable (present/absent) with demographic variables (e.g., gender, ethnicity) and psychiatric diagnostic variables (e.g., somatization disorder, major depression, dysthymia, generalized anxiety, panic, and phobic disorders, and abridged somatization). The Fisher’s exact test is used to examine statistical significance in these analyses. *T*-tests are used to relate hypochondriasis to continuous variables such as age. For estimating *disability*, we used scores in the SF-36 Health Survey’s “physical functioning” scale as a continuous variable in regression analyses.

Results

The 1456 patients were 55% female, ages 18–66 years. The sample included four ethnic groups: US-born non-Hispanics, all white ($N = 533$); US-born Latinos, all of Mexican origin ($N = 205$); Mexican immigrants ($N = 593$), and Central American Immigrants ($N = 125$), the majority of whom were from El Salvador and Guatemala. One subject was dropped from further analyses because of missing data. Therefore, all analyses reported here represent 1455 patients.

DSM-IV Hypochondriasis

Prevalence. Forty-nine of the 1455 patients met the DSM-IV criteria for hypochondriasis. Thus, the prevalence rate of DSM-IV hypochondriasis in this sample was 3.4%.

Demographic Factors. Table 1 shows the demographic breakdown for patients with DSM-IV hypochondriasis vs those not meeting such criteria. According to these data, hypochondriasis in primary care patients seems to be an “equal opportunity” diagnosis, apparently unrelated to any given demographic factor.

Somatization Disorder and Hypochondriasis

Four of the 20 patients who met criteria for DSM-IV somatization disorder also met criteria for DSM-IV hypochondriasis. The prevalence rate of hypochondriasis in patients with DSM-IV somatization disorder (20%) is significantly higher than its prevalence among those without the disorder (3.1%) (Fisher’s exact test $p < 0.004$).

Conversely, we also found higher rates of somatization disorder among primary care patients who met the DSM-IV criteria for hypochondriasis (8.2%)

Table 1. DSM-IV hypochondriasis in primary care: demographic factors^a

Variable	(Total N)	DSM-IV Hypochondriasis (N)	Percent
Gender			
Males	800	25	3.8
Females	656	24	3
Immigrant status			
Immigrant	718	28	3.9
US-born	738	21	2.8
Ethnicity			
US-born whites	533	15	2.8
US-born Latinos	205	6	2.9
Mexican-born	593	26	4.4
Central Americans	125	2	1.6

^a No significant differences found across gender, country of birth, or ethnicity.

compared with those without hypochondriasis (1.1%). This difference was statistically significant ($p < 0.001$, Fisher’s exact test).

Hypochondriasis and Abridged Somatization.

We found significant overlap between these two categories with one-half (49%) of patients meeting criteria for hypochondriasis also meeting the abridged somatization criteria, compared with only 21% of those without hypochondriasis. Moreover, 15% of those above the abridged somatization threshold were positive for hypochondriasis compared with only 2.2% of those below the threshold (Fisher’s exact test $p < 0.001$).

Hypochondriasis and Disability

Patients with DSM-IV hypochondriasis had a lower mean score on SF-36’s “physical functioning” index (total score = 21) than those without hypochondriasis (total score = 24) [$t(1448) = 2.17, p < 0.03$].

Hypochondriasis and Other Psychopathology

Table 2 shows the coexistence of DSM-IV hypochondriasis and other major psychiatric diagnoses. Note that statistically significant associations with hypochondriasis are found in the case of major depression, melancholic depression, and somatization disorder diagnoses.

Discussion

This is the first time, to our knowledge, that the prevalence of DSM-IV hypochondriasis has been formally assessed in a North American primary care setting using a structured diagnostic interview. In this study, the CIDI proved effective for scrutinizing symptoms of hypochondriasis in a relatively simple, unobtrusive fashion. The straightforward queries generally elicited unambiguous responses consistent with responses to other related items in the instrument (e.g., those tapping other somatic concerns and use of services).

According to our data, though hypochondriasis appears to be more frequent than somatization disorder in primary care, both DSM-IV diagnoses are relatively rare in such settings, thus capturing only a small portion of patients presenting with medically unexplained physical symptoms. There was a modest overlap between hypochondriasis and somatization disorder, but hypochondriacs had fewer unexplained medical symptoms than patients with somatization disorder. Thus, less than 50% of the cases of hypochondriasis met the abridged somatization criteria. Also, although in this and other studies [11,12], rates of somatization were higher among females, those from low educational levels, and those from some ethnic groups, in this study, rates of hypochondriasis were not related to any demographic factor. These findings support the view that these two somatoform entities may constitute separable, distinct syndromes.

There are few reports on specific rates of hypo-

Table 2. DSM-IV hypochondriasis: percent with other psychopathology

CIDI diagnoses	Hypochondriasis	No hypochondriasis	Significance ($p <$)
Major depression	41	18	0.0003
Melancholia	12	5	0.04
Dysthymia	8	4	NS
Anxiety	8	4	NS
Somatization disorder	8	1	0.001

chondriasis in primary care settings. The international study coordinated by WHO reported an 0.8% prevalence rate of hypochondriasis using ICD-10 criteria (Ustun, *unpublished manuscript*). This is lower than the rate we found using the DSM-IV. Though a comparison of the ICD-10 and DSM-IV criteria for hypochondriasis shows that both systems share similar core items, additional requirements of the ICD-10 criteria (“preoccupation with no more than two physical diseases, one of which at least must be named by the patient” and “persistent refusal to accept medical advice that there is no adequate physical cause for symptoms”) make these criteria more restrictive than those of DSM-IV.

Regarding disability, our data showed that hypochondriasis significantly interfered with physical functioning. Indeed, the only diagnosis more disabling than hypochondriasis in this primary care sample was DSM-III-R somatization disorder (data not shown). Manu et al. [13] had previously observed a highly noxious effect of hypochondriasis on quality of life and functioning of patients with chronic fatigue, far outweighing the impact of depression.

As has been previously shown in other studies [1,2,11], we found a significant association between hypochondriasis and diagnoses of major depression and melancholia, suggesting that hypochondriasis may be intimately related to the depressive “spectrum,” thus supporting long-standing clinical observations.

According to these results, DSM-IV hypochondriasis and somatization disorder seem to add little over and above the disability conveyed by the broader construct of abridged somatization, a sub-threshold indicator that captures all cases of DSM-IV SD, a majority of those with depression and anxiety syndromes, and a significant number of those with hypochondriasis.

Conclusion

The study had several possible limitations. First, the response rate (50%) was relatively low, although participants did not differ substantially from non-participants. Second, the structured interview was administered by trained interviewers who nonetheless had limited clinical expertise. And third, research interviews relied primarily on self-report, without consistent validation using secondary sources or medical records. Despite these potential

limitations, we showed that hypochondriasis can be properly diagnosed using a structured interview; that this diagnosis, though more common than somatization disorder, accounts for a small fraction of patients presenting with unexplained symptoms, and that unlike somatization, hypochondriasis seems unrelated to any measured demographic factor. Finally, when the disorder is present, psychiatric comorbidity with depression is common, that with anxiety is rare, and there is only modest overlap with somatization disorder.

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