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.

Recognition of Emotional Distress in Physically Healthy Primary Care Patients Who Perceive Poor Physical Health

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Abstract: *This study examines the recognition and treatment of emotional distress in physically healthy primary care patients who perceive themselves to be in fair or poor physical health. Patients (N = 892) from three private primary care practices completed a mental health screening form prior to their medical visit which included an overall assessment of their physical health (1 = excellent, 2 = good, 3 = fair, 4 = poor). Following the visit, their physicians completed a questionnaire that included the same physical health assessment item. The study group, physically healthy patients who perceive poor physical health (HPPPH), included those patients who rated their physical health as 2 or 3 points more impaired than it was rated by their physician. HPPPH (N = 39) were significantly more likely than other patients (N = 853) to report a prior psychiatric hospitalization ($p < 0.05$), marital difficulties ($p < 0.01$), recent missed work due to a mental health problem ($p < 0.001$), and a range of anxiety, depressive, and psychosomatic symptoms. However, HPPPH were also significantly more likely than other patients to receive excellent emotional health ratings ($p < 0.001$) from their physicians and were less likely*

to receive mental health treatment ($p < 0.05$). Detection of emotional distress may be particularly difficult in physically healthy patients who have low physical health perceptions. Identification of pessimistic physical health perceptions may serve as an indicator for underlying emotional distress.

Introduction

Primary care physicians commonly encounter patients who think they are physically ill despite a paucity of objective evidence indicating somatic disease [1–3]. In extreme cases, patients may exhibit a chronic pattern of vague, multisystemic symptoms (somatization disorder), persistently misinterpret normal physiological sensations as disease in a specific organ system (hypochondriasis), or present with a specific loss of functioning which mimics physical disease (conversion). These patients and those with less severely distorted health perceptions share an overly pessimistic view of their physical health. As a group, they have been unsympathetically labeled the “worried well” [4].

In recent years, it has become increasingly clear that a patient's health perceptions significantly influence his or her health outcome. Several studies suggest that self-evaluations of health predict

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long-term mortality, over and above the contribution made by objective health problems [5–7]. In other words, negative health perceptions appear to have a direct and independent adverse effect on physical health. The link between disturbed health perceptions and health outcome remains poorly understood.

High levels of emotional distress characterize physically healthy patients who view themselves as physically ill [8,9]. Psychological distress may amplify existing physical symptoms [10] or cause otherwise healthy patients to develop symptoms that result in increased somatic concern and a diminished sense of well being [11]. Once these individuals perceive themselves as ill, their function may begin to deteriorate [9].

Concern exists that mental disorders commonly escape the detection of primary care physicians. Several reports suggest that primary care physicians may fail to diagnose accurately their patients who suffer from depression, alcoholism, and other psychiatric disorders [12–14]. Little is known about the extent to which patients with overly pessimistic health perceptions receive appropriate mental health care, although some evidence suggests that primary care physicians have difficulty detecting anxiety and depression in the presence of somatization [15,16]. In the current study, we evaluate the mental health status of patients with pessimistic health perceptions and examine the recognition and treatment of their mental health problems by a group of primary care physicians.

Methods

General

The study was conducted at three private primary care practices in cooperation with the Brown University School of Medicine Departments of Family Medicine and Psychiatry. One of the practices has two full-time physicians, one has the equivalent of 2.5 full-time physicians, and one has two full-time physicians and two nurse practitioners. None of the practices were engaged in on site teaching of medical students or interns and residents at the time of the study and all of the physicians were board certified in Family Practice.

The data were collected as part of a major study of patient screening for mental disorders in primary care. The methods, primary objectives, and general characteristics of the patient population are described elsewhere [17].

Patients

Consecutive new and continuing patients, between 18 and 70 years of age, who could read and write English were invited to participate in the study. Patients who were coming for prenatal visits and those who were not scheduled to have face-to-face contact with their physician were excluded.

Of 2515 patients who were assessed by a research assistant to meet criteria for inclusion in the study, 1600 were asked to participate. The remainder were missed because of rapid patient flow ($N = 709$) or left before being seen ($N = 193$). Of the 1600 patients who were asked to participate, 423 (26%) refused and 240 (15%) were subsequently found not to meet entry criteria. This left a total of 937 patients who completed the screening forms. The patient overall physical health question was completed by the patient and physician for 892 of the 937 patients who entered the study (95%).

Patient Screening Form

While waiting to see their physician, patients were asked to complete a questionnaire which probed basic sociodemographic data, role functioning, and mental health symptoms. The mental health symptoms included an 18-item version of the Center for Epidemiology Studies Depression Scale (CES-D) [18]. Similar role functioning questions have been used to help validate subsyndromal mental conditions in epidemiologic studies [19,20]. Information was also collected on each patient's recent use of mental health services, psychotropic medications, and medical services. One of the questions asked each patient to make a broad evaluation of his or her own physical health ("What best describes your physical health in the last month?"). Patients were asked to choose among four alternative responses: excellent, good, fair, and poor. A related question asked each patient to evaluate his or her emotional health in the last month.

Physician Questionnaire

Following completion of the screening form, each patient was provided with routine medical care by his or her primary care physician. At the end of the visit, the physician was asked to complete a brief questionnaire. This questionnaire probed whether the patient had an emotional problem, and if so, what kind, and how the physician managed the

problem. The physician was also asked to assess the patient's overall physical and emotional health during the past month (excellent, good, fair, poor). Physicians completed their questionnaire without knowledge of the responses to the patient screening form.

Physically Healthy Patients Who Perceive Poor Physical Health

In the following analysis, comparisons are made between two groups: physically healthy patients who perceive poor physical health (HPPPH) and controls. The former group was defined as patients who rated their physical health as two or three points more impaired than it was rated by their physician. This included patients who reported that they were in "fair" physical health when their physician thought it was "excellent" and patients who rated themselves as in "poor" physical health when their physician thought it was either "good" or "excellent." All other subjects were defined as controls.

Statistical Methods

Between-group comparisons on nominal variables were made with the χ^2 -test, except when the cell size fell below five, in which case Fisher's exact test was used. Between-group comparisons on continuous variables were made with the Student's *t*-test. The strength of linear relationships between pairs of variables was measured with the Pearson product-moment correlation (*r*).

Results

General

Approximately four out of five patients rated their overall physical health as excellent (25.2%) or good (55.4%) and a smaller percentage rated themselves as in either fair (16.7%) or poor (2.7%) physical health. According to the physician assessments, 31.1% of the patients were in excellent physical health, 52.5% in good health, 15.2% in fair health, and 1.2% in poor health. The correlation between patient and physician ratings of physical health was $r = 0.337$ ($p < 0.01$).

A total of 39 patients or 4.4% of the sample met criteria for physically healthy patients who perceive poor health. This group included 27 who reported themselves to be in fair health but their physician found it excellent, and 12 who reported

poor health but their physician found it either excellent ($N = 4$) or good ($N = 8$).

Demographic Characteristics

Table 1 presents the demographic characteristics of the two study groups. Both groups were predominantly white, married, female, between the ages of 26 and 45, and had at least some college education. There were no statistically significant differences between the groups on any of the demographic variables.

Mental Health History

As compared with the controls, the HPPPH tended to be more likely to report having had a mental health problem and having made a mental health visit, but these differences did not reach statistical significance. A significantly larger pro-

Table 1. Demographic characteristics of physically healthy patients who perceive poor physical health and other primary care patients

Characteristic	HPPPH (<i>N</i> = 39) %	Other patients (<i>N</i> = 853) %
Age (years)		
<26	20.5	19.8
26-35	30.8	26.4
36-45	33.3	25.1
46-65	10.3	25.4
>65	5.1	3.3
Mean (SD)	36.2 (12.4)	38.3 (13.1)
Sex		
Female	74.4	71.5
Male	25.6	28.5
Race		
White	97.4	97.6
Nonwhite	2.6	2.4
Marital status		
Married	65.8	66.0
Never married	26.3	22.7
Separated/divorced	7.9	8.2
Widowed	0	3.1
Education		
<High school	0	2.2
High school	25.7	30.8
Some college	28.6	25.1
College graduate	45.7	41.9

HPPPH includes all patients who rated their physical health 2 or 3 points more impaired than it was rated by their physician (1—Excellent, 2—Good, 3—Fair, 4—Poor).

portion of HPPPH than control patients had stayed overnight or longer in a hospital because of an emotional problem (Table 2).

Role Functioning

A significantly higher proportion of the HPPPH than control patients reported having missed work, school, or been unable to do housework during the past month because of a mental health problem. As compared with the controls, the HPPPH reported that their marriages (or relationships with partners) were less harmonious. However, the two study groups did not significantly differ in the frequency with which they socialized with friends and family. A majority of both groups reported they had gone out socially with friends or relatives more than four times in the past month (HPPPH: 56.4%, control: 59.3%) (Table 3).

Most of the HPPPH (54.5%) and controls (58.9%) reported working full time for pay. Considerably fewer reported working part time (HPPPH: 12.1%, control: 16.5%). Although rare, a significantly larger proportion of the HPPPH than controls reported receiving disability benefits (Table 3).

Mental Health Symptoms

A majority of the HPPPH rated their emotional health during the past month as either fair (48.7%)

Table 2. HPPPH Mental health history

Variable	HPPPH (N = 39) %	Other patients (N = 853) %
Mental health problem (lifetime)	42.9	28.7
Nervous breakdown (lifetime)	8.1	3.3
Mental health visit (lifetime)	47.4	33.1
Mental health visit (past month)	20.5	15.6
Mental health inpatient admission (lifetime)	12.1*	3.8
Substance abuse inpatient admission (lifetime)	0	2.0
Psychotropic medications (lifetime)	28.9	16.8
Psychotropic medications (past month)	13.5	12.0

HPPPH (same as in Table 1).

* $p < 0.05$ compared with other patients.

Table 3. Self-reported role functioning of HPPPH and other primary care patients

Measure	HPPPH (N = 39) %	Other patients (N = 853) %
Missed days of work, school, or housework due to mental health problem (past month)	40.5**	9.2
Got along with spouse or partner not well or very poorly (past month)	20.6*	7.4
No visits with friends or relatives in past month	2.6	2.8
Not enough money to care for self & family (past month)	23.7	15.5
Receiving financial disability payments	5.4*	2.8

HPPPH (same as in Table 1).

* $p < 0.01$ comparison with other patients.

** $p < 0.001$ comparison with other patients.

or poor (7.7%). In contrast, most of the controls rated their emotional health as either good (48.5%) or excellent (29.7%).

The HPPPH more frequently reported a variety of anxiety, depressive, and somatic symptoms than the other patients (Table 4). More than two-thirds of the HPPPH reported that in the last month they had been bothered by worrying or tension and a substantial percentage also reported nervousness, fear, and a rapid heart beat (Table 4). Somatic symptoms commonly associated with emotional distress such as fatigue, backaches, headaches, and generally feeling "sickly" were also common among the HPPPH. In addition, the HPPPH group reported a range of depressive symptoms. They scored significantly higher than the controls on the 18-item CES-D and frequently admitted to blaming themselves and feeling discouraged about the future (Table 4).

Service Utilization

In the month prior to the visit, most of the patients in each group did not make a single visit to their family doctor (HPPPH: 57.1% vs control: 62.4%) or to another physician (HPPPH: 58.1% vs control:

Table 4. Selected symptoms reported by HPPPH

Symptom	HPPPH (N = 39) %	Other patients (N = 853) %
Anxiety symptoms		
Worrying	74.4 ^{***}	47.2
Tension	71.8 ^{***}	49.3
Restlessness	59.0 ^{***}	30.5
Anxiety	52.6	37.2
Nervousness	48.7 [*]	32.7
Fear	33.3 [#]	18.2
Rapid heartbeat	25.6	14.1
Sudden panic attack	17.9 [*]	8.3
Rapid pulse	17.9	10.5
Trembling and shaking	10.3	6.6
Fear of going crazy	2.6	6.4
Somatic symptoms		
Fatigue	79.5 [#]	55.5
Backaches	71.8 ^{***}	49.6
Headaches	69.2 ^{**}	48.5
Feeling "sickly"	59.0 ^{##}	25.0
Dizziness	41.0 ^{##}	16.4
Joint pain	38.5	34.0
Indigestion	35.9	25.3
Chronic pain	34.2 ^{**}	18.0
Stomach pain	28.9	17.1
Lump in throat	10.5	8.3
Vomiting	7.7	3.5
Depressive symptoms		
2-week period depressed mood	53.8	38.7
2-year period depressed mood	35.9	22.9
Unhappiness	41.0	20.0
Blaming yourself	31.6 ^{**}	15.7
Discouragement about future	46.1 ^{**}	28.9
Thoughts of death (past month)	17.9	14.5
Feeling suicidal (past month)	5.3	1.9
Mean CES-D score (SD)	15.1 (10.0) ^{##}	8.8 (8.4)

HPPPH (same as Table 1). Reference period is 1 month for all symptoms, except where otherwise noted. * $p < 0.05$, ** $p < 0.025$, *** $p < 0.01$, # $p < 0.005$, ## $p < 0.001$. All comparisons are with other patients.

70.8%). Over the 1-month recall period, the mean number of visits by the HPPPH to family physicians was 0.77 (SD = 1.03) as compared with 0.53 (SD = 0.80) for the controls. For visits to other physicians, the 1-month means were 0.87 (SD = 1.54) and 0.50 (SD = 1.23), respectively.

Physician Assessment

The physicians rated the HPPPH as emotionally healthier than the controls. Whereas approximately two-thirds of the HPPPH were judged by their physicians to be in excellent emotional health, only about one-third of the controls were so assessed. Approximately one in five HPPPH patients and one in four controls were thought by their primary care physician to have an active or chronic emotional problem. The most commonly identified problems among the HPPPH were stress (28.9%), anxiety (23.7%), and depression (16.7%) (Table 5). The correlation between the physician's and patient's rating of patient emo-

Table 5. Physician's mental health assessment and management of HPPPH and other primary care patients

Measure	HPPPH (N = 39) %	Other patients (N = 853) %
Assessment		
Excellent emotional health	68.4 ^{**}	33.6
Active or chronic emotional problem	21.6	26.7
Stress	28.9	39.2
Anxiety	23.7	26.3
Depression ^a	16.7	18.5
Hypochondriasis	5.1	1.3
Phobia	5.1	0.5
Personality disorder	2.6	1.0
Neurosis	2.6	2.1
Fatigue	2.6	3.0
Substance abuse	0	2.2
Self-destructiveness	0	0.5
Intervention		
Any MH intervention	12.8	26.8 [*]
Verbal intervention	10.3	24.8
Return visit	2.6	12.4
Drug prescription ^c	2.6	5.0
Referral to specialist	0	3.1

MH = mental health.

^a Includes major depression, minor depression, and mixed anxiety/depression.

^b Includes listening to problems, giving advice, discussing possible diagnosis with the patient, counseling the patient, and counseling the family.

^c Includes minor tranquilizers, hypnotics, antidepressants, and other psychotropic drugs.

* $p < 0.05$ comparison with HPPPH.

** $p < 0.001$ comparison with other patients.

tional health was similar for the HPPPH ($r = 0.393$) and other ($r = 0.452$) patients.

Mental Health Treatment

The HPPPH were significantly less likely than the controls to receive an active mental health intervention during the index medical visit (Table 5). When an intervention was provided, it was usually counseling or advice. Only one of the HPPPH patients received a prescription for a psychotropic medication and none of them were referred for specialized mental health treatment.

Discussion

The current findings should alert primary care physicians to the possibility of significant undetected and untreated mental health morbidity among patients who have unduly negative perceptions of their own physical health. Patients who underrate their physical health are likely to experience a wide range of mental health symptoms which often pass unnoticed in primary care settings. In this sense, the phrase "worried well" is potentially misleading as it contributes to the inaccurate perception that these patients are healthy when in fact in our sample, they experience substantial mental health morbidity.

Patients with overly pessimistic physical health perceptions typically report a broad array of mental health problems including symptoms of anxiety, depression, and psychosomatic illness. The clinical assessment of these patients is complicated by the non-specific nature of their symptom profile. One clinical strategy is to assess directly the patient's health perceptions. Although physicians are trained to think in terms of specific clinical syndromes rather than general health assessment, how patients perceive their general health may provide clues to underlying emotional distress. For this reason, it may be useful for clinicians to ask patients routinely to provide a broad assessment of their health. When physicians discern that a patient is substantially underrating his or her own physical health, a more detailed mental health examination should be considered.

It is commonly assumed that patients who are overly concerned about their physical health attribute their somatic concern to a physical disorder [2] and will resist the suggestion that they may be

under emotional distress. In contrast to this stereotype, we found that this patient group acknowledged comparatively high levels of emotional impairment. Kirmayer and Robbins [21] also reported that a majority of primary care patients who were initial "somatizers" readily offered psychosocial explanations for their distress or acknowledged that "nerves or worries" could be related to their symptoms. Interestingly, these investigators found that a somatic presentation of anxiety and depression tended to decrease physician recognition of the psychiatric condition whereas somatizing patients who resisted psychosocial explanations of their symptoms were more readily recognized [16].

In the current study, more than half of the index cases thought that their emotional health was either fair or poor. In contrast, the physicians rated approximately two-thirds of these patients as having excellent emotional health. This striking discrepancy may form the basis of the low rate with which this group receives active mental health care from their primary care physicians.

Primary care physicians may be more confident in their ability to assess physical as opposed to emotional problems. When primary care physicians sense that their patient has an overly pessimistic view of his or her physical health, they may tend to discredit the patient history. In such cases, physicians may rely more extensively on objective symptoms and laboratory findings. This subtle shift in the assessment process may lead primary care physicians to overlook indications that the patient is psychologically distressed. Because the diagnosis of mental disorders is largely based on the patient's self-report, a bias against the verbal history may obscure the recognition of psychological distress. In one recent report, recognition of psychiatric distress was inversely related to the level of somatization [16].

Some primary care physicians may believe that providing primary mental health care to their patients with overly pessimistic health perceptions will not significantly change the clinical course. A sense of therapeutic nihilism inhibits efforts to uncover underlying mental health morbidity. Goldberg et al. [22] observed while training family physicians to recognize psychiatric illness that many physicians appeared to make a conscious decision not to ask about psychiatric symptoms because they did not know what to do once they discovered them. In our study, a substantial proportion

of the patients with pessimistic health perceptions experienced general psychiatric symptoms such as anxiety and depression which commonly respond to pharmacologic and psychotherapeutic interventions.

Previous research has demonstrated that physically healthy patients who perceive poor health are particularly high utilizers of medical services [8,23]. We found only limited support for this generalization. Although these patients showed a tendency to more frequent recent health care visits, the effect was modest and not statistically significant in our sample. It should be acknowledged, however, that the recall period for service utilization was relatively brief (1 month) and a longer recall period or a longitudinal design might have uncovered more significant findings.

Primary care physicians face increasing pressure to contain medical costs. In many areas, the proliferation of managed care has placed administrative barriers on access to specialized mental health services thereby limiting the range of treatment options. Where it is available, psychiatric consultation may be useful for patients with extreme disturbances in health perceptions that characterize the somatoform disorders. In one study, psychiatric consultation for patients with somatization disorder was associated with reduced health care utilization and costs without worsening the patient's clinical status or satisfaction with treatment [24]. In large group practices, a second treatment option may be for primary care physicians to employ a nurse or social worker to provide short-term counseling [25].

The current findings are constrained by several methodologic limitations. The significant rate of patient refusal to participate raises the possibility that the study samples are not representative of the primary care practices with respect to health perceptions and mental health indicators. A second limitation is that the patient and physician measures of physical health are based on single items of unknown reliability. If available, a multiple-item scale might have provided a more reliable index of health perception. A related methodologic concern is the reliance on physicians as the "gold standard" for physical health status assessment. In some cases, patients with objectively accurate perceptions of their physical health status may have been placed in the experimental group because their physician made an unduly optimistic health assessment.

Conclusion

A group of primary care patients perceive their physical health as substantially more impaired than it is perceived by their physicians. Although these patients frequently report a wide range of mental health symptoms and often experience impaired role functioning, most are not recognized by their primary care physician as having a mental health problem and only a few are provided with active mental health care. The identification of poor health perceptions in patients who are seemingly otherwise healthy may serve as an indication of possible underlying emotional distress. Future research should focus on improving our understanding of the clinical characteristics and response to treatment of this patient group.

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