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Functional Impact and Health Utility of Anxiety Disorders in Primary Care Outpatients

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Objective: The objective of this study was to examine the relative impact of anxiety disorders and major depression on functional status and health-related quality of life of primary care outpatients.
Method: Four hundred eighty adult outpatients at an index visit to their primary care provider were classified by structured diagnostic interview as having anxiety disorders (panic disorder with or without agoraphobia, social phobia, and posttraumatic stress disorder; generalized anxiety disorder was also assessed in a subset) with or without major depression. Functional status, sick days from work, and health-related quality of life (including a preference-based measure) were assessed using standardized measures adjusting for the impact of comorbid medical illnesses. Relative impact of the various anxiety disorders and major depression on these indices was evaluated.
Results: In multivariate regression analyses simultaneously adjusting for age, sex, number of chronic medical conditions, education, and/or poverty status, each of major depression, panic disorder, posttraumatic stress disorder, and social phobia contributed independently and relatively equally to the prediction of disability and functional outcomes. Generalized anxiety disorder had relatively little impact on these indices when the effects of comorbid major depression were considered. Overall, anxiety disorders were associated with substantial decrements in preference-based health states.
Conclusions: These observations demonstrate that the presence of each of 3 common anxiety disorders (ie, panic disorder, posttraumatic stress disorder, and social phobia)—over and above the impact of chronic physical illness, major depression, and other socioeconomic factors—contributes in an approximately additive fashion to the prediction of poor functioning, reduced health-related quality of life, and more sick days from work. Greater awareness of the deleterious impact of anxiety disorders in primary care is warranted.

Key Words: anxiety disorders, depressive disorders, impairment, health utility, disability, primary care

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Anxiety disorders are the most prevalent category of mental disorder in the United States[1] and most other countries.[2] Whether viewed from a community[3,4] or from a clinical perspective,[5] anxiety disorders are associated with substantial disability and reduced well-being.[6] This evidence of high prevalence in conjunction with substantial deleterious impact on functioning merits consideration of anxiety disorders as a significant public health concern.[7,8] The question of prioritization must then be posed: Given limited resources, how can efforts best be directed to target this problem? To answer this question, a clear appreciation of the relative contributions of various forms of anxiety (and depressive) psychopathology to functional outcomes is critical.

In many countries, most patients with mood and anxiety disorders receive most or all of their health care from primary care providers.[9–11] It is therefore imperative that the relationship between anxiety disorders and functional outcomes among primary care patients be well understood. In a series of elegant cost-effectiveness modeling papers, investigators have shown that society would benefit from applying healthcare funds to improving care for anxiety disorders.[12,13] Anxiety disorders, particularly panic disorder and posttraumatic stress disorder, are associated with increased healthcare costs,[14,15] and there is the possibility that better mental health treatment will offset these costs.[16]

Given the high comorbidity rates of anxious patients seen in primary care settings,[17,18] it is especially important that the relative contributions to functional status of the various anxiety disorders and major depression be well-delineated. Although there is evidence that anxiety and phobic disorders[5] in primary care is associated with measurable and meaningful decrements in functioning,[19–21] at least one

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other study saw anxiety disorders as generally mild and nonimpairing.[22] It is difficult to ascertain reasons for the differences between studies, but these may include variation in types of patients included, analytic approaches used, or a combination thereof.

The purpose of this study was therefore to bring additional data to bear on this controversy by examining associations of specific anxiety disorders (with or without major depression) with functional status and health-related quality of life among primary care outpatients. An implicit goal of the study was to document the burden of illness associated with anxiety disorders in primary care. Included in the study were 480 patients evaluated for anxiety symptoms in university-affiliated outpatient clinics in 3 West Coast U.S. cities (Los Angeles, San Diego, and Seattle). It was hypothesized that major depression would be associated with substantially more disability than anxiety disorders but that the incremental impact of anxiety disorders would be detectable and meaningful. Differential impact of various types of anxiety disorders (eg, panic disorder > social phobia) was also postulated. It was anticipated that results of this study would underscore the importance of attending to anxiety disorders in primary care and, buttressed with evidence of probable cost-effectiveness of their treatment,[13,16] would galvanize attempts to develop and disseminate primary care treatment guidelines for anxiety disorders.

SUBJECTS AND METHODS

Setting and Subjects

Data are from the baseline phase of the Collaborative Care for Anxiety and Panic (CCAP) Study, a randomized, controlled trial of pharmacotherapy and cognitive–behavioral therapy for patients with panic disorder in primary care that included patients from university-affiliated primary care clinics in Seattle and southern California.[23,24] Eligible subjects were patients at these clinics who 1) were between 18 and 70 years old, 2) were English-speaking, and 3) had access to a telephone. The study was approved by the Institutional Review Boards of all 3 universities (University of Washington, University of California–Los Angeles, and University of California–San Diego) and all subjects provided written, informed consent to participate.

Over the first 18 months of this study, approximately 6900 patients were recruited in clinic waiting rooms on high-volume days. Precise number of days per week screening varied from site to site and time to time but averaged 3 to 4 half-days per week. Patients were approached by trained research assistants and asked to fill out a short health questionnaire (after providing informed written consent) if they had not already done so at a prior visit. This brief self-report questionnaire requested information about demographics, chronic medical illness (asthma, arthritis, lung disease, diabetes, hypertension, advanced coronary artery disease, heart failure, other heart disease, neurologic conditions, gastrointestinal problems, eye problems, or migraines), and anxiety and depressive symptoms. The latter included validated screening questions for panic disorder (PD), social phobia (SP), and posttraumatic stress disorder (PTSD); positive predictive values for these instruments range from approximately 0.6 to 0.8 (Means-Christensen et al, unpublished data).[25,26] Approximately 1 in 5 patients were determined to be eligible for the interview portion of the study by virtue of screening positively for PD, SP, or PTSD. For every patient at a site who screened positive, the tenth next patient at that site who screened negative for everything (ie, reported no anxiety or depressive symptoms at screening) was also considered eligible for the interview. The 480 patients who were selected for, and actually completed the interview, are the subject of this report. (Additional patients were subsequently enrolled in the CCAP study,[24] but a slightly different version of the screening instrument was used. We have elected, for the sake of minimizing variability between patients that might have been detected by the 2 versions of the screener, to present in this report only those subjects who completed the first version of the screener.)

Diagnostic Interview

The diagnostic interview was conducted over the phone by trained lay interviewers using modules from the telephone-validated World Health Organization's 12-Month Composite International Diagnostic Interview (CIDI),[27,28] which we modified (with several additional prompts) to enhance its ability to distinguish between panic and social phobia.[29] Diagnostic modules for PD, SP, PTSD, and major depressive disorder (MDD) were administered to all subjects; a generalized anxiety disorder (GAD) module was added midway through the study and was administered to only a subset (n = 168) of subjects.

Indicators of Functional Status

To measure functional status and health-related quality of life, we used 5 items selected from the larger WHO Disability Scale,[30] and mental and physical health-related quality of life using the global physical and mental health scales of the short-form 12 (SF-12).[31] The 5 WHO items (WHO-5), suggested by the scale developer (B. Ustun, personal communication), asked on a 1 (none) to 5 (extreme/cannot do) scale about past 30-day: 1) difficulty standing for 30 minutes or longer, 2) difficulty taking care of household responsibilities, 3) difficulty learning a new task, 4) difficulty joining in community activities, and 5) being emotionally affected by one's health condition. In our sample, these 5 items had high internal consistency (alpha = 0.78) and correlated moderately (r = −0.48) to strongly (r = −0.61) with the emotional well-being and physical functional subscales, respectively, of the SF-12. The SF-12 reproduces SF-36 summary measures with an accuracy of over 90% and has demonstrated good validity[31]; it yields physical and mental health composite scores (PCS and MCS), respectively. We also estimated from the SF-12 a single index measure of health utility (ie, a preference-based measure of health).[32]

Work loss was defined dichotomously by self-report of having missed one or more work days (yes or no) in the prior month as a result of health problems. This variable was only available for those individuals (n = 283) who described

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themselves as working full-time or part-time outside the home.

Statistical Analysis

Independent variables that were considered to possibly explain the extent of functional disability and/or health-related quality of life include 1) anxiety disorder diagnoses (considering *any* or considering *specific* anxiety disorders as determined by the CIDI), 2) major depression diagnosis (as determined by the CIDI), 3) sociodemographic and site of care characteristics (included were age [50 years or younger vs. older], sex, ethnicity [white vs. other], education [high school or less vs. more], and clinic site [San Diego, Seattle, or Los Angeles]), and 4) physical health status (number of chronic medical conditions, determined by self-report and, based on their distribution in this sample, dichotomized into 0 or 1 vs. 2 or more chronic medical conditions).

We used multiple linear regression analysis (using the SAS REG procedure) to evaluate the relationship between anxiety (and/or depression) diagnoses (coded with 0 or 1 "dummy" variables to denote presence of absence of each disorder) and quantitative functioning variables (ie, physical composite score [PCS-12] and mental composite score [MCS-12] from the SF-12, and 5-item WHO disability score [WHO-5]), adjusting for the other possible explanatory factors noted previously (ie, age, sex, education, clinic site, and chronic physical illness burden). When GAD was included in the models, these were run only for the subsample of subjects in which the CIDI GAD module had been administered. Similar analyses, adding income as a predictor (dichotomized as at or below vs. above the poverty line according to 2001 Federal Poverty Guidelines),[33] were applied to the estimation of the preference-based measure of health utility derived from the SF-12 and adjusted preference-based indices (ranging from 0.35–1.00)[32] for patients with and without anxiety disorders (with and without comorbid major depression) are presented to provide an index of the magnitude of these effects on health utility.

These analyses were run with SPSS Release 11.0.1 (using the General Linear Model [GLM] procedure). We used multiple logistic regression analysis (using the SAS LOGISTIC procedure) with the same set of predictor variables to estimate these patterns of association for dichotomous functioning variables (ie, any missed work days; any missed job time [partial days]). To determine whether specific (or any) anxiety disorder diagnoses had significant impacts over and above comorbid major depression (MDD), models were rerun with anxiety and depression diagnoses simultaneously entered. As a result of missing data for certain variables, sample sizes vary for different outcomes.

RESULTS

Sociodemographic and Diagnostic Characteristics of the Sample

Sociodemographic Characteristics

Demographic characteristics of the patients in the study are shown in Table 1. The sample was predominantly female and middle-aged or younger. The sample was ethnically diverse (approximately 1 in 3 subjects were nonwhite, with subjects describing themselves as black [n = 77] or Hispanic [n = 51] constituting the 2 most common ethnic minority groups in the study) and of diverse social class (approximately 1 in 4 subjects were below the poverty line and approximately 1 in 4 had a high school education or less). As would be expected of a primary care sample, there was a moderate burden of physical illness, with approximately 1 in 3 patients reporting 2 or more chronic medical conditions.

TABLE 1. Demographic Characteristics of the Sample (n = 480)

	Total No. (%)
Site	
Seattle	241 (50.2)
San Diego	154 (32.1)
Los Angeles	85 (17.7)
Age (yr)	
18–29	103 (21.5)
30–45	173 (36.0)
46–59	170 (35.4)
60–70	34 (7.1)
Sex	
Males	177 (36.9)
Females	303 (63.1)
Education	
High school or less	112 (23.4)
Some college or more	367 (76.6)
Income	
Below poverty line	124 (25.9)
Above poverty line	354 (74.1)
Race	
White	308 (64.2)
Nonwhite	172 (35.8)
Depression	
Depressed	192 (40.2)
Not depressed	286 (59.8)
Illness burden	
No chronic illnesses	170 (35.5)
One chronic illness	140 (29.2)
2 or more chronic illnesses	169 (35.3)

Anxiety and Depressive Disorders in the Sample

Of the 480 patients included in the study, 162 were not diagnosed with any of the anxiety disorders under consideration (although 10 of these had major depressive disorder [MDD]). The remaining 318 patients were diagnosed with one or more Diagnostic and Statistical Manual of Mental Disorders, 4th Edition anxiety disorders. Of these, 231 (72.6%) had PD with or without agoraphobia, 149 (46.9%) had SP, 111 (34.9%) had PTSD, and 52 (31.0% of n = 168 administered this module) had GAD; these numbers are not mutually exclusive and reflect extensive comorbidity. In fact, 82.7% patients with anxiety disorders (ie, 139 of the 168 patients for whom all 4 anxiety disorders, including GAD,

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were assessed) had more than one anxiety disorder, and 182 (57.2%) of the 318 patients with anxiety disorders had comorbid MDD.

Functioning and Health-Related Quality of Life

Physical Health Functioning

In multiple linear regression analyses in which 3 anxiety diagnoses (ie, PD, PTSD, and SP) were simultaneously entered (adjusting for all of covariates noted in the "Statistical Analysis" section), only PD was a significant, negative (ie, indicating poorer functioning) predictor of physical health functioning on the PCS-12 (Table 2). Adding MDD to the multivariate regression analyses described previously did not substantively change the prediction of PCS-12 scores (although PD fell below the usual threshold for significance in this model; data not shown).

Mental Health Functioning

In contrast, each of the 3 anxiety diagnoses contributed significantly, negatively (ie, indicating poorer functioning), and approximately equally to the prediction of mental health functioning on the MCS-12 (Table 3). Using the same predictors as in Table 3, each of the 3 anxiety diagnoses contributed significantly, positively (ie, indicating more disability), and approximately equally to the prediction of disability on the WHO-5 (PD beta = 2.70, standard error [SE] = 0.34, standardized beta = 0.290, $P < 0.0001$; PTSD beta = 2.38, SE = 0.44, standardized beta = 0.211, $P < 0.0001$; SP beta = 2.37, SE = 0.38, standardized beta = 0.238, $P < 0.0001$).

In reanalyses with the smaller (and, hence, less powerful) sample in which GAD diagnoses were obtained, using the same predictors as in Table 3, each of the 4 anxiety diagnoses contributed significantly to the prediction of mental health functioning on the MCS-12, with the impact of GAD being somewhat less than that of the other 3 anxiety disorders (PD beta = −7.09, SE = 1.81, standardized beta = −0.271, $P < 0.0001$; PTSD beta = −6.26, SE = 2.12, standardized beta = −0.197, $P = 0.0036$; SP beta = −7.82, SE = 1.97, standardized beta = −0.264, $P < 0.0001$; GAD B = −4.76, SE = 1.83, standardized beta = −0.181, $P = 0.011$). In analyses in which all 4 anxiety diagnoses were used to predict disability on the WHO-5, GAD (beta = 1.13, SE = 0.72, standardized beta = 0.117, $P = 0.12$) and PTSD (beta = 1.09, SE = 0.83, standardized beta = 0.093, $P = 0.19$) failed to make significant contributions, whereas PD (beta = 2.35, SE = 0.73, standardized beta = 0.244, $P = 0.0015$) and SP (beta = 1.65, SE = 0.77, standardized beta = 0.150, $P = 0.033$) each contributed significantly.

Adding major depression showed that each of the 3 anxiety disorders and MDD were significant—and approximately equivalent in terms of magnitude—predictors of mental health functioning (Table 3). Virtually identical results were seen in the case of WHO-5 scores (using the same set of predictors as in Table 3), in which each of the 3 anxiety disorders and MDD were significant predictors—once again with approximately equal magnitudes of association—of disability (MDD: beta = 1.99, SE = 0.39, standardized beta = 0.209, $P < 0.0001$; PD: beta = 2.29, SE = 0.34, standardized beta = 0.246, $P < 0.0001$; PTSD: beta = 1.71, SE = 0.44, standardized beta = 0.152, $P < 0.0001$; SP: beta = 1.91, SE = 0.38, standardized beta = 0.192, $P < 0.0001$).

TABLE 2. Linear Regression Model Predicting PCS-12 Scores—Model 3: Anxiety Disorders

Variable	Beta	SE Beta	Standardized Beta
Race (white vs. nonwhite)	0.926	1.00	0.036
Sex (female vs. male)	−0.175	1.03	0.007
Age (yr)	−0.048	0.045	−0.050
Site (Washington vs. others)	−3.54	1.39	−0.145*
Site (San Diego vs. others)	−0.537	1.40	−0.021
Education (high school + vs. less)	2.37	1.16	0.082*
Chronic diseases (one vs. others)	−5.06	1.22	−0.189†
Chronic diseases (≥2 vs. others)	−12.97	1.39	−0.507†
Panic disorder	−2.00	0.978	−0.082*
Posttraumatic stress disorder	−1.39	1.26	−0.047
Social phobia	−0.042	1.11	−0.002

*$P < 0.05$.
†$P < 0.0001$.
PCS-12 indicates physical composite score; SE, standard error.

TABLE 3. Linear Regression Models Predicting MCS-12 Scores

Variable	Beta	SE Beta	Standardized Beta
Model 1: 3 Anxiety Disorders			
Race (white vs. nonwhite)	−0.120	0.965	−0.004
Sex (female vs. male)	1.51	0.984	0.057
Age (yr)	0.081	0.044	0.080
Site (Washington vs. others)	0.799	1.33	0.032
Site (San Diego vs. others)	0.862	1.35	0.031
Education (high school + vs. less)	0.703	1.11	0.023
Chronic diseases (one vs. others)	−0.403	1.17	−0.014
Chronic diseases (≥2 vs. others)	−1.81	1.33	−0.067
Panic disorder	−8.82	0.940	−0.344*
Posttraumatic stress disorder	−8.68	1.21	−0.279*
Social phobia	−8.28	1.07	−0.301*
Model 2: 3 Anxiety Disorders and Major Depression†			
Panic disorder	−7.28	0.919	−0.284*
Posttraumatic stress disorder	−6.19	1.20	−0.199*
Social phobia	−6.57	1.04	−0.239*
Major depression	−7.41	1.05	−0.283*

*$P < 0.001$.
†All other parameters included like in model 1, but those revised parameter estimates are not shown.
MCS-12 indicates mental composite score; SE, standard error.

Work Loss

Among individuals who described themselves as working full-time or part-time outside the home (n = 283), in multiple logistic regression analyses (adjusting for all of covariates noted in the "Statistical Analysis" section), having *any anxiety disorder* was associated with an increased odds of missing at least 1 work day in the prior month (Table 4).

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TABLE 4. Logistic Regression Model Predicting Work Loss

Variable	Beta	SE Beta	*P*
Model 1: Any Anxiety Disorder			
Race (white vs. nonwhite)	0.488	0.290	0.091
Sex (female vs. male)	0.440	0.291	0.131
Age (yr)	−0.047	0.013	0.0006
Site (Washington vs. others)	−0.546	0.370	0.140
Site (San Diego vs. others)	0.052	0.358	0.886
Education (high school + vs. less)	0.931	0.402	0.021
Chronic diseases (one vs. others)	1.08	0.333	0.0012
Chronic diseases (≥2 vs. others)	1.56	0.410	0.0001
Any anxiety disorder	0.855	0.294	0.0036
Model 2: Replacing "Any Anxiety Disorder" with 3 Particular Anxiety Disorders*			
Panic disorder	0.637	0.275	0.020
Posttraumatic stress disorder	0.670	0.421	0.112
Social phobia	0.454	0.328	0.166

*All other parameters included like in model 1, but those revised parameter estimates are not shown.
SE indicates standard error.

TABLE 5. Linear Regression Model Predicting Health Utility

Variable	Beta	SE Beta	*P*
Model 1: Any Anxiety Disorder			
Race (white vs. nonwhite)	0.0007	0.012	0.950
Sex (female vs. male)	0.015	0.012	0.204
Age (yr; >50 vs. ≤50)	−0.047	0.013	0.620
Poverty (below poverty line vs. not)	−0.066	0.014	<0.0005
Education (≤high school vs. more)	0.017	0.014	0.208
Chronic diseases (0 vs. one or more)	−0.076	0.013	<0.0005
Any anxiety disorder	−0.161	0.012	<0.0005
Model 2: "Any Anxiety Disorder" and Major Depression*			
Any anxiety disorder	−0.122	0.013	<0.0005
Major depression	−0.087	0.012	<0.0005

*All other parameters included like in model 1, but those revised parameter estimates are not shown.
SE indicates standard error.

When all 3 of the anxiety disorders was entered simultaneously (using the same set of predictors as in Table 4), each of PD (odds ratio [OR], 1.89; 95% confidence interval [CI], 1.10–3.24), PTSD (OR, 1.95; 95% CI, 0.86–4.46), and SP (OR, 1.58; 95% CI, 0.83–3.00) increased, approximately equally, the odds of missing at least 1 work day in the prior month (although only PD reached conventional levels of statistical significance in this analysis [$\chi^2 = 5.37$, $df = 1$, $P = 0.021$]). GAD did not show a significant association with work loss, although power to detect such associations was very low for this subsample of working individuals (n = 52).

In a multiple logistic regression analysis simultaneously including any anxiety disorder and MDD (and all the other covariates as shown in Table 4), both were associated (approximately equally) with increased odds of missing at least 1 work day in the prior month: any anxiety disorder (OR, 1.83; 95% CI, 0.98–3.42, $\chi^2 = 3.53$, $df = 1$, $P = 0.06$); MDD (OR, 1.72; 95% CI, 0.94–3.16, $\chi^2 = 3.05$, $df = 1$, $P = 0.08$). Similarly, both were associated (approximately equally) with increased odds of missing *any time* from work in the prior month: any anxiety disorder (OR, 2.22; 95% CI, 1.30–3.78, $\chi^2 = 8.69$, $df = 1$, $P = 0.0034$) or MDD (OR, 2.15; 95% CI, 1.23–3.77, $\chi^2 = 7.24$, $df = 1$, $P = 0.007$).

Health Utility

To provide a perspective on overall health utility associated with anxiety disorders in primary care patients, we used the SF-12 data to calculate a preference-based measure of health, as recently described.[32] Using this metric, health states can vary from an optimal 1.0 to a low of 0.0 (although a score of 0.35 is the lowest score seen in this and other samples).[32] Adjusting for a similar set of covariates used in prior models (ie, chronic physical illness, age, ethnicity, education, and also including income in reference to poverty thresholds), we tested models with 1) presence or absence of any anxiety disorder, and 2) presence or absence of any anxiety disorder with or without a comorbid depressive disorder (Table 5).

Adjusting for all other covariates in the model, mean health utility in primary care patients without anxiety or depressive disorders is estimated to be 0.80 (95% CI, 0.78–0.82), whereas that in patients with anxiety disorders alone is 0.68 (95% CI, 0.66–0.70) and that of patients with depressive disorders alone is quite similar at 0.72 (95% CI, 0.66–0.79). Comparatively, mean health utility in patients with combined anxiety *and* depressive disorders is substantially lower at 0.59 (95% CI, 0.57–0.61).

DISCUSSION

In the present study, using multivariate regression analyses adjusting for age, sex, and number of chronic medical conditions, each of major depression, PD, PTSD, and SP contributed independently and relatively equally to the prediction of poor functioning, reduced health-related quality of life, and more sick days from work. In contrast, GAD had relatively little impact on these indices when the effects of comorbid major depression were considered (possibly owing to its extensive comorbidity with[34]—and perhaps its etiological relationship to[35]—major depression). Overall, these observations leave no doubt that anxiety disorders carry with them a profound burden of disability for patients in the primary care setting. Importantly, the impact of anxiety disorders was substantial even among patients with chronic medical illness, consistent with observations that much of the disability and work loss associated with physical illness seen in the community is, in fact, attributable to comorbid mental disorders.[36,37]

Several prior studies have pointed to the substantial burden of disability associated with anxiety symptoms[20] and anxiety disorders[21,38] in general medical settings. However, several other studies have failed to confirm these observations, instead finding that disability associated with anxiety disorders tends to either be minimal[22] or subsumed by that attributable to other mental disorders such as major depression.[5] In this latter-mentioned study,[5] phobic disorders *were* seen as impairing, and it is therefore possible that the differ-

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ent findings reflect only differences in descriptive nomenclature (ie, agoraphobia and social phobia considered phobic rather than anxiety disorders).

Our findings with regard to health utility of anxiety disorders are particularly illuminating. Utility for current health of patients with anxiety disorders are comparable to those associated with other serious, chronic physical disorders such as irritable bowel syndrome (0.67), leg ulcers (0.65), and low back pain (0.66), whereas the values for anxiety disorders with depression are comparable to those associated with chronic obstructive pulmonary disease (0.58).[39] The health utilities presented in this article are adjusted for comorbid medical conditions and socioeconomic factors so that these indirect comparisons to other medical disorders—when these adjustments were not made[39]—almost certainly understate the impact of anxiety disorders on health utility. It has been suggested that the "minimally important difference" (ie, the smallest change in health state value that can be regarded as important and meaningful for health professionals, patients, and other stakeholders) for this particular measure is approximately 0.05.[40] Using this metric, the mean 0.12 and 0.21 reductions in health state values associated with anxiety (without or with major depression, respectively) would be meaningful, indeed.

As do the aforementioned studies,[5,20–22,38] our study has particular methodological characteristics and limitations that bear consideration when interpreting the results. First and foremost, this may be a nonrepresentative sample. Although screening was systematic, it was not randomized and there may be biases in terms of who agreed to be interviewed or the likelihood of being asked to participate (ie, higher utilizers might have been more likely to be present at screening). If more severely impacted patients participated, then the study may have a more seriously ill (and functionally more impaired) sample than would otherwise be expected. On the other hand, it is unlikely that these kinds of response biases would fall along diagnostic lines, ie, it is very unlikely that sicker patients with PTSD participated, whereas healthier patients with panic disorder participated. Accordingly, in the sample that did choose to participate, the inferences made about the relative impact of these disorders on functioning should be valid. In fact, by virtue of having included all eligible anxiety-disordered patients and only a random subsample of nonanxious comparison subjects, the sample is enriched for anxiety disorders. This provides better power than in prior studies to gauge the *relative* impact of various disorders, but the absolute contribution of anxiety disorders to disability (ie, attributable risk) in a representative primary care sample cannot be determined from such a design. This should be a goal of future research.

Our findings have potentially important implications for primary care practice and policy. The majority of individuals with anxiety and depressive disorders receive most or all of their mental health care from primary care physicians (PCPs).[11] Depression has clearly been shown to be a major determinant of functional outcomes in medical settings, outranking most chronic physical illnesses in its deleterious impact on quality of life, health utility, and work performance.[37,41] Accordingly, whereas the "seriousness" of major depression in primary care is being increasingly acknowledged, resulting in the recent issuance of guidelines for depression screening,[42] anxiety disorders have yet to garner this level of attention by PCPs. Our data suggest that anxiety disorders are no less "serious"—in terms of their associations with functional impairment and work loss—than major depression (and, by inference, many other chronic physical illnesses). Consistent with recent research using cost-effectiveness models, our health utility data also suggest that effective anxiety disorder interventions may result in large health utility gains and therefore low (ie, more favorable) cost-effectiveness ratios.[12,13]

From a policy perspective, these data should generate additional discussion about the pros and cons of expanding primary care consciousness beyond the narrow scope of depression to include anxiety disorders. PCPs are deluged with recommendations issued by specialty stakeholders to pay heed to their particular disorder. It is uncertain whether recommendations to focus more on anxiety disorders, rather than exclusively depression, would be met favorably in this regard.

However, there is evidence that if you convince PCPs that the disease has important negative consequences and treatment is helpful (and has a high probability of cost offset, as has been demonstrated for panic disorder),[16] they will pay attention.[43] The kind of information provided by this study should help in making the first part (ie, anxiety disorders are often associated with substantial impairment and diminished health states, rivaling that of major depression) of this argument. Data are accumulating on the effectiveness of primary care approaches for treating anxiety disorders.[24,44] However, before screening for anxiety disorders should proceed, evidence supporting the effectiveness of screening to result in treatment that improves patient outcomes will be required.

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