

Research Article

BELIEFS ABOUT PSYCHOTROPIC MEDICATION AND PSYCHOTHERAPY AMONG PRIMARY CARE PATIENTS WITH ANXIETY DISORDERS

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Primary health care clinics are increasingly providing psychiatric/psychological treatment of anxiety disorders, particularly for patients who do not have adequate access to specialty mental health services. Adequate treatment requires knowledge of and attention to patients' beliefs about available treatment options. The current investigation examined beliefs about psychotropic medications and psychotherapy among a sample of primary care patients with anxiety disorders. The influence of key demographic variables on strength of these beliefs was also explored. The presence of specific anxiety disorders was not found to impact strength of beliefs about either type of treatment. In contrast, there was a trend for the presence of depression to relate to more favorable attitudes toward psychotropic medication. Consistent with previous studies, ethnic minority patients reported less favorable attitudes toward both psychotropic medications and psychotherapy. These findings underscore the importance of assessing patient beliefs prior to the initiation of either psychotropic medications or psychotherapy across diagnostic and demographic groups. Practitioners should be particularly alert to the possibility that patients with anxiety disorders and members of ethnic minority groups may have less favorable attitudes toward treatment options. Treatment adherence may therefore be increased by addressing these beliefs directly. Depression and Anxiety 21:99–105, 2005.

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INTRODUCTION

Primary health care clinics increasingly provide mental health treatment to a significant proportion of the population, particularly individuals from disadvantaged groups such as ethnic minorities and those of low

socioeconomic status (SES) [DeLeon et al., 2003]. As such, research efforts have begun to address the development and evaluation of pharmacological and psychosocial protocols for these settings. To date, these efforts have primarily focused on the treatment of depression, and here outcome studies are promising

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[e.g., Katon et al., 1996; Katon et al., 1999; Unutzer et al., 2002; Wells et al., 2000]. Less is known about the effective treatment of anxiety disorders in primary health care clinics despite the high prevalence of anxiety disorders in these settings [but see Roy-Byrne et al., 2005, for a recent study of panic treatment in primary care].

An important consideration in the implementation of any intervention is the belief system or preferences of the patient population. Across theoretical models, patient beliefs have a central role in health behavior prediction and change [see Fishbein, 2000]. Specific to mental health treatments, studies have shown that degree of belief in the rationale for treatment is linked to more rapid and overall better treatment outcomes [e.g., Addis and Jacobson, 1996, 2000; Fennel and Teasdale, 1987; Ilardi and Craighead, 1994]. Similarly, greater treatment compliance has been found for patients matched to treatments they prefer compared to patients randomly assigned to treatment [e.g., Chilvers et al., 2001; Eisenthal et al., 1979]. As a result, the Institute of Medicine has emphasized the importance of taking patient needs and preferences into account to provide high-quality health care [Medicine Io, 2001]. As with the treatment outcomes studies, however, the majority of studies on beliefs and preferences involved patients with depressive disorders only. Evidence that belief systems may differ among patients with anxiety disorders comes from studies that have found that individuals with anxiety disorder perceive less need for psychiatric treatment [e.g., Mojtabai et al., 2002] and receive less quality treatment [Stein et al., 2004; Young et al., 2001] than those with mood disorders.

Only a few studies have examined treatment beliefs and preferences among patients with anxiety disorders. Hazlett-Stevens et al. [2002] examined willingness to consider medication or “meeting with a specialist” to control panic symptoms among a large sample of primary health care patients presenting with panic episodes. Sixty-seven percent of this sample was willing to consider the psychosocial option, and 64% indicated a willingness to consider medication. Similar rates were found by Roy-Byrne and colleagues [2003] in their study of treatment preferences among assault victims presenting to an emergency-room setting. When patients were asked if they were interested in “counseling” or medication to help them with their reactions to their assault, 76% indicated a willingness to consider counseling and 62% were willing to consider medication.

In contrast, Zoellner and colleagues [2003] reported striking differences in preferences in their study of treatment options for posttraumatic stress disorder (PTSD). In this study, an analog sample (all female) was presented fictional vignettes depicting an individual who experienced an assault and subsequent PTSD symptoms. Participants were provided information on two treatment options, cognitive behavior therapy (CBT) and pharmacotherapy (sertraline) via written

materials that included rationale, procedures, and potential side effects. Treatment preferences were assessed with a forced-choice format that also included a no-treatment option—substantially more participants chose CBT over medication (87 vs. 7%). This study suggests that the type of information and range of treatment options that individuals are provided can greatly influence treatment choice.

Treatment beliefs and preferences may be influenced by demographic factors. A number of studies have found that in general, ethnic minorities view seeking treatment for mental health problems as more stigmatizing [e.g., Cooper-Patrick et al., 1997] and have less trust in health care professionals overall [e.g., LaVeist et al., 2000] compared to nonminorities. Regarding treatment preferences specifically, Cooper et al. [2003] reported that in a sample of primary care patients, African Americans and Hispanics were less likely to view medications as acceptable treatment for depression compared to Caucasians whereas Hispanics were somewhat more likely to find counseling acceptable compared to Caucasians. In their sample of primary care patients, Dwight-Johnson et al. [2000] found that African Americans were more likely to prefer counseling over medication for treatment of depression, and this was to a greater extent than Caucasian patients. In addition to examining ethnicity, this study also found that wealthier individuals were more likely to prefer any treatment for depression compared to poorer individuals. In one of the few studies to examine the influence of ethnicity on treatment preferences among patients with anxiety disorders, Hazlett-Stevens et al. [2002] reported that both African American and Asian patients were less likely to consider medication to control panic episodes than Caucasian patients.

Towards the goal of providing quality treatment of anxiety disorders in primary care settings, the present study sought to examine beliefs about psychotherapy and psychotropic medication among a large sample of primary health care patients with anxiety disorder diagnoses. This study adds to the literature by including individuals with a range of anxiety disorder diagnoses and utilizing an expanded measure of treatment beliefs. Exploratory analyses were conducted on the association between beliefs (about medications and about psychotherapy) and the presence of each of the primary anxiety disorder diagnoses. No specific predictions were made about the association between specific anxiety disorders and beliefs due to the relative absence of theory or previous research on this topic. In addition, the relationship between key demographic variables and beliefs was examined. Based on previous research, it was predicted that individuals who belong to ethnic minority groups and those with lower SES would be less likely to prefer medication for treatment than Caucasians or those with moderate incomes. As existing studies on ethnicity and SES have found mixed results on the association between these variables and psychotherapy beliefs, no specific predictions were

made for these analyses. This study did not compare beliefs about medications to beliefs about psychotherapy (i.e., preferences for treatment). Instead, this study assessed beliefs about each to determine potential barriers to both treatments. In addition, patients are rarely faced with a forced choice between the two treatment options. More typically, patients are presented with one option in primary care settings (i.e., medication); in settings where psychotherapy is an option, patients can usually pursue this in conjunction with medication.

METHODS

SETTING AND PARTICIPANTS

Data for this study are from the baseline assessment of the Collaborative Care for Anxiety and Panic (CCAP) study, a randomized, controlled trial of evidence-based treatment (including both pharmacotherapy and CBT) for panic disorder in primary health care settings [Roy-Byrne et al., 2004]. Patients were screened and recruited from five university-affiliated primary care clinics in Seattle, San Diego, and Los Angeles.

Participants were screened in clinic waiting rooms using a brief self-report questionnaire that assessed demographics, chronic medical illness, and anxiety and depression symptoms. The anxiety and depression items have demonstrated predictive validity for panic disorder, social phobia, posttraumatic stress disorder, generalized anxiety disorder (GAD), and major depressive disorder [Connor et al., 2001; Stein et al., 1999]. A total of 8,315 patients were initially screened. Those who screened positive for any anxiety disorder and a random sample of patients screening positive for no disorder were invited to participate in a telephone diagnostic interview ($n = 1,319$). Sixty-one percent of this group participated in the telephone interview ($n = 801$), which included a diagnostic assessment (described in the Measures section). Questions assessing beliefs about psychotherapy and psychotropic medication were asked during the telephone interview. All individuals meeting diagnostic criteria for panic disorder were initially administered the beliefs items. To assess beliefs across diagnostic groups, the beliefs items were administered to *all* individuals during the telephone interview beginning approximately one third of the way through the study (Therefore, although a higher percentage of individuals with panic disorder completed these items, all those completing the items are viewed as representative of their diagnostic groups.). The current study includes those patients who met DSM-IV [American Psychiatric Association, 1994] criteria for panic disorder, social phobia, posttraumatic stress disorder, or generalized anxiety disorder ($n = 273$) and those who met criteria for no disorder ($n = 69$), all of whom completed the beliefs items, for a total of 342 participants.

MEASURES

The diagnostic interview included relevant sections from the Composite Diagnostic Interview (CIDI) by the World Health Organization [1997]. The generalized anxiety disorder module was not initially included but was added midway through the study to the remaining patients ($n = 130$). The CIDI has strong psychometric properties [Reed et al., 1998] and has been validated for administration over the telephone. In addition, we slightly modified the interview (by adding prompts) to enhance its ability to distinguish between panic and social phobia.

The telephone interview also included questions about demographic characteristics and beliefs about psychiatric/psychotherapy treatment. A recent manuscript by our group describes the procedures involved in the development of two psychometrically sound subscales derived from the treatment items, reflecting beliefs about medications and psychotherapy specifically [Bystritsky et al., in press]. The six items in the Beliefs about Medicine scale were originally derived from those used previously in studies of treatment of depression in primary care [e.g., Lin et al., 2003] and modified to refer to anxiety symptoms specifically. The eight items from the Beliefs about Psychotherapy scale were originally derived from a larger psychotherapy beliefs scale developed and validated by our group [Story et al., unpublished data]. All items are rated on a 5-point Likert scale (*strongly disagree* to *strongly agree*), with several items reverse scored. Higher scores represent more favorable attitudes toward treatment. A two-stage process that included principle axis factor analysis and confirmatory factor analysis yielded internally consistent (Cronbach's α s were .71 and .82 for beliefs about psychotropic medication and psychotherapy, respectively) and distinct scales [Bystritsky et al., in press]. The scales also have demonstrated adequate validity [Bystritsky et al., in press]. Based on the assumption that patients are more familiar with specific medications for specific disorders and less aware that psychotherapy can be similarly specific, the psychotherapy items do not ask about anxiety symptoms specifically. Although this was done to increase the face validity of the items, it does make between-scale comparisons problematic. See Table 1 for a list of the items from the two scales.

STATISTICAL ANALYSES

Initial analyses showed statistical differences between the California sites and the Washington site on key demographic variables; therefore, univariate analysis of covariate analyses (ANCOVAs), controlling for site, were used to assess differences in beliefs about treatment across the anxiety disorders. Similar analyses were used to assess differences in beliefs across demographic groups. Beliefs about psychotherapy and beliefs about medications were assessed in separate

TABLE 1. Items from the beliefs about medications and beliefs about psychotherapy scales

Beliefs about Medications	
1. Panic and anxiety symptoms can usually be improved with medication.	
2. Medications are an important part of the treatment of anxiety and panic.	
3. Medications for panic and anxiety can help a person feel better physically.	
4. People with anxiety should avoid taking medications to help their anxious problems.*	
5. Medications for panic and anxiety do not help a person cope better.*	
6. Most medications for anxiety or panic are highly addictive.*	
Beliefs about Psychotherapy	
1. Therapy is ineffective for most people.*	
2. Therapy patients are wasting money.*	
3. Therapy often harms the patient's relationships with other people.*	
4. Being in therapy is a sign of weakness.*	
5. Therapy often offers patients new and beneficial perspectives.	
6. Therapy is unhealthy because patients usually become dependent on their relationships with the therapist.*	
7. Therapy can help individuals overcome stressful life events.	
8. Therapy can be a healthy experience for anyone.	

*These items are reverse scored.

analyses, as the number and content of items differed between scales.

RESULTS

Table 2 lists the demographic characteristics of the sample. As can be seen, approximately two thirds were female, most had at least a high-school education, and the majority was middle-aged or younger. Thirty-five percent of the sample self-identified as non-Caucasian, with the most prevalent minority groups reporting as African American/Black (14.3%) or Hispanic/Latino (12.3%). Approximately one third lived below poverty.

Of the 273 patients who met criteria for at least one anxiety disorder, 248 (72.5%) had panic disorder with or without agoraphobia, 115 (33.6%) had social phobia, 90 (26.3%) had posttraumatic stress disorder, and 50 (31.3% of those administered the GAD module) had generalized anxiety disorder. As can be seen, there was considerable comorbidity in this sample, with almost half (43.3%) having more than one anxiety disorder. Further, 153 (56%) met criteria for major depressive disorder.

RELATIONSHIP BETWEEN TREATMENT BELIEFS AND SPECIFIC ANXIETY DISORDERS

As can be seen in Table 3, a positive diagnosis was not related to differences in beliefs about either psychotropic medications or psychotherapy for the majority of the anxiety disorders. There was a trend for social phobia to be related to less favorable views of

TABLE 2. Demographic characteristics of the sample (N = 342)

Sex (M/F)	129 (37.7)/213 (62.3)
Education	
High school or less	90 (26.4)
Some college or more	251 (73.6)
Income	
Below poverty line	109 (31.9)
Above poverty line	233 (68.1)
Race	
Caucasian	224 (65.5)
Non-Caucasian	118 (34.5)
Black	49 (14.3)
Hispanic/Latino	42 (12.3)
Asian/Pacific Island	12 (3.5)
Native American	10 (2.9)
Depression	
Depressed	156 (45.6)
Not depressed	186 (54.4)
Age	
Older than 50	107 (31.3)
50 or younger	235 (68.7)
Comorbidity	
2 or more anxiety disorders	148 (43.3)
1 anxiety disorder	125 (36.5)

Values are expressed as *n* (%).

psychotherapy, which may reflect the discomfort with interpersonal interactions that is characteristic of the disorder. The presence of a depression diagnosis was related to a trend toward higher scores (i.e., more favorable attitudes) for beliefs about medication; however, as can be seen, the actual mean difference is fairly small.

Given the high comorbidity of diagnoses, it is possible that the failure to find an association between the presence of any specific disorder and beliefs about either treatment is due to the coexistence of other disorders. Therefore, the analyses were repeated for those patients who met criteria for panic disorder only ($n = 109$), those who did not meet criteria for any anxiety disorder ($n = 69$), and those who met criteria for other disorders, including depression ($n = 164$; the sample sizes for those who only met criteria for each of the remaining anxiety disorders were too small for analyses). No significant differences in scores on the two belief scales emerged, providing further evidence that the presence of anxiety disorders does not influence the beliefs one holds about either psychotropic or psychotherapeutic treatment.

RELATIONSHIP BETWEEN TREATMENT BELIEFS AND KEY DEMOGRAPHIC VARIABLES

The relationships between demographic variables and beliefs about psychotropic medication and psychotherapy were examined next (see Tables 4 and 5). Only patients who met criteria for an anxiety disorder

TABLE 3. Evaluation of beliefs about psychotropic medications and psychotherapy scales, according to the presence of anxiety disorders and depression, controlling for site

Diagnosis type	Belief scale	Diagnosis present (<i>M, SE</i>)*	Diagnosis absent (<i>M, SE</i>)*	<i>F</i> (1, 339)	<i>P</i>
Panic disorder	Medication	22.34 (.18)	21.93 (.30)	1.44	.23
	Psychotherapy	31.32 (.24)	31.49 (.40)	.12	.73
Social phobia	Medication	22.38 (.26)	22.16 (.19)	.49	.50
	Psychotherapy	30.78 (.36)	31.66 (.25)	4.09	.04
PTSD	Medication	22.27 (.30)	22.21 (.18)	.03	.86
	Psychotherapy	31.20 (.40)	31.43 (.24)	.23	.63
GAD	Medication	22.00 (.38)	22.01 (.25)	.00	.97
	Psychotherapy	30.71 (.47)	31.49 (.32)	1.89	.17
Depression	Medication	22.63 (.23)	21.90 (.21)	5.75	.02
	Psychotherapy	31.58 (.30)	31.19 (.28)	.86	.35

*Estimated marginal means.

were used in these analyses ($n = 273$) since the intent was to assess the impact of demographic variables on treatment beliefs among patients with anxiety disorders. Given the small sample sizes of certain racial/ethnic groups, participants were analyzed as Caucasian and non-Caucasian. As predicted, non-Caucasians had less favorable views of both psychotropic medication and psychotherapy than Caucasians. No significant differences in beliefs were found for any of the remaining demographic variables.

Finally, to find the most salient, independent contributors to beliefs about medication and psychotherapy, a model was fit with four variables: any anxiety disorder (yes or no), depression (yes or no), ethnicity (Caucasian or not), and SES (above or below the poverty line), in two standard regressions. The model predicting beliefs about medication was significant, $F(4, 337) = 6.85$, $P < .001$, $R^2 = .08$. Ethnicity, $\beta = .24$, $t(337) = 4.43$, $P < .001$, and depression, $\beta = .14$, $t(337) = 2.36$, $P = .02$, were found to be independent contributors. The model predicting beliefs about psychotherapy also was significant, $F(4, 337) = 4.77$, $P < .001$, $R^2 = .05$. Again, ethnicity was a significant contributor, $\beta = .19$, $t(337) = 3.44$, $P < .01$, and there was a trend for SES, $\beta = .11$, $t(337) = -1.94$, $P = .05$.

DISCUSSION

This study examined the association between specific anxiety disorders and beliefs about psychotropic medications and psychotherapy in a sample of primary health care patients. The associations between key demographic variables and treatment beliefs within this population also were explored. Until recently, anxiety disorders among primary care patients have been understudied and subsequently, inadequately treated [Stein et al., 2004]. Therefore, this study contributes to a new and growing body of research aimed at better understanding the needs of this important population.

TABLE 4. Evaluation of beliefs about psychotropic medications, according to demographic variables, controlling for site

	<i>M (SE)</i> *	<i>F</i> (1, 270)	<i>P</i>
Sex		1.05	.31
Male	22.54 (.30)		
Female	22.15 (.22)		
Education		1.52	.22
High school or less	21.92 (.35)		
Some college or more	22.42 (.20)		
Income		1.97	.16
Below poverty line	21.92 (.31)		
Above poverty line	22.48 (.22)		
Race		15.34	.00
Caucasian	22.77 (.21)		
Non-Caucasian	21.38 (.29)		
Age		.82	.37
Older than 50	22.54 (.33)		
50 or younger	22.19 (.20)		

*Estimated marginal means.

Overall, the presence of specific anxiety disorders (i.e., panic disorder, social phobia, PTSD, and GAD) was not related to the strength of beliefs about either psychotropic medications or psychotherapy. In contrast, there was a trend for the presence of depression to be related to more favorable views of psychotropic medication. Although the diagnostic composition of the sample was inadequate to compare strength of beliefs between those with anxiety disorders only to those with depression only, these results do suggest that compared to individuals with depression, those with anxiety disorders may initially be less amenable to treatment of their disorders. This is consistent with the study by Mojtabai and colleagues [2002] in which individuals with anxiety disorders were found to see less need for psychiatric treatment than those with mood disorders. It may be the case that depression is more commonly recognized as an important mental health problem (by both patients and physicians), thus

TABLE 5. Evaluation of beliefs about psychotherapy, according to demographic variables, controlling for site

	<i>M</i> *	<i>SE</i>	<i>F</i> (1, 270)	<i>P</i>
Sex			2.45	.12
Male	30.82	.42		
Female	31.65	.31		
Education			2.49	.12
High school or less	30.71	.48		
Some college or more	31.60	.28		
Income			1.04	.31
Below poverty line	31.00	.44		
Above poverty line	31.57	.31		
Race			13.17	.00
Caucasian	32.00	.30		
Non-Caucasian	30.18	.40		
Age (yr)			.33	.57
Older than 50	31.59	.46		
50 or younger	31.28	.29		

*Estimated marginal means.

leading to more knowledge about and positive attitudes toward treatment [Stein et al., 2004]. Together, these results point to the importance of assessing beliefs about treatment on an individual basis among primary care patients with anxiety disorders (i.e., not making a priori assumptions about patients' beliefs and expectations) and fully orienting patients to the available treatment options. Based on the role of beliefs in treatment adherence and outcome, the provision of such information may be a critical component in increasing effective treatment for anxiety disorders in primary care settings.

As predicted, the current study did find that ethnic minority patients with anxiety disorders had less favorable beliefs about both psychotropic medications and psychotherapy than the Caucasian patients. This is consistent with studies of depressed patients and with studies of treatment-seeking ethnic minorities in general. These findings suggest that effective treatment of anxiety disorders among ethnic minority patients may be enhanced by assessing and directly addressing the factors that contribute to these less favorable beliefs (e.g., through the provision of information, problem-solving concerns, etc.). Previous studies have indicated that stigma (for seeking help) and lack of trust in health care professionals are two prominent contributory factors among ethnic minority individuals [Cooper-Patrick et al., 1997; LaVeist et al., 2000]. Note that the different ethnic minority populations were aggregated for the analyses here, and strength of beliefs may indeed vary between specific ethnic minority groups.

Contrary to prediction, SES was not related to treatment beliefs nor was any other demographic variable. It may be that these types of characteristics are inadequate predictors of treatment beliefs, again pointing to the importance of conducting individua-

lized assessments of patients' beliefs before presenting treatment options.

Several limitations of this study should be noted. First, the sample consisted of patients with multiple anxiety disorder and depression comorbidities, making it impossible to examine beliefs about treatment among discrete diagnostic groups. Therefore, it cannot be determined from this study if strength in beliefs about treatment varies according to specific diagnostic groups; it only can be concluded that the *presence* of different anxiety disorders is (in the case of the current study, is *not*) related to the strength of treatment beliefs. Future studies should address treatment beliefs among discrete diagnostic groups. It is important to stress that the types of comorbidities seen in this current sample are characteristic of actual primary care populations, which supports the relevance of the approach used here.

Second, the measure of treatment beliefs used is relatively new, with limited data available on its psychometric properties (although preliminary studies are encouraging). Relatedly, the clinical significance of the actual scale scores (and therefore, the statistical differences found) is unknown at the current time. In addition, the items assessing psychotherapy beliefs were not specific to anxiety disorders, and this limits the interpretations that can be drawn. Further, preference for treatment between medications and psychotherapy was not examined in the current study, which is often a relevant and important consideration in a primary care setting. Finally, the results were derived from a relatively small sample of primary care patients from select West Coast clinics and cannot be generalized beyond the characteristics of the sample used here. Each of these points highlights important areas for future investigations.

Nonetheless, this study provides important preliminary data on psychiatric/psychological treatment beliefs among primary care patients with anxiety disorders. This type of information is critical towards the effective treatment of anxiety disorders among primary care patients. Given that the primary care medical setting is the sole provider of mental health care for many individuals, particularly disadvantaged populations and a disproportionate number of ethnic minorities, investigations of this type also represent an important step in efforts to reduce existing health care disparities.

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