# Mental Health Treatment Received by Primary Care Patients With Posttraumatic Stress Disorder

Benjamin F. Rodriguez, Ph.D.; Risa B. Weisberg, Ph.D.; Maria E. Pagano, Ph.D.; Jason T. Machan, Ph.D.; Larry Culpepper, M.D., M.P.H.; and Martin B. Keller, M.D.

***Background:*** Posttraumatic stress disorder (PTSD) is receiving growing attention as a pervasive and impairing disorder but is still undertreated. Our purpose was to describe the characteristics of mental health treatment received by primary care patients diagnosed with PTSD.

***Method:*** 4383 patients from 15 primary care, family practice, or internal medicine clinics were screened for anxiety symptoms using a self-report questionnaire developed for the study. Those found positive for anxiety symptoms (N = 539) were interviewed with the Structured Clinical Interview for DSM-IV. Of these patients, 197 met diagnostic criteria for PTSD and were examined in the present study regarding the rates and types of mental health treatment they were currently receiving. Data were gathered from July 1997 to May 2001.

***Results:*** Nearly half (48%) of the patients in general medical practice with PTSD were receiving no mental health treatment at the time of intake to the study. Of those receiving treatment, psychopharmacologic interventions were most common. Few patients were receiving empirically supported psychosocial interventions. Current comorbid major depressive disorder and current comorbid panic disorder with agoraphobia were significantly associated with receiving mental health treatment (major depressive disorder, $p < .10$; panic disorder with agoraphobia, $p < .05$). The most common reason patients gave for not receiving medication was the failure of physicians to recommend such treatment, which was also among the most common reasons for not receiving psychosocial treatment.

***Conclusions:*** Despite the morbidity, psychosocial impairment, and distress associated with PTSD, substantial proportions of primary care patients with the disorder are going untreated or are receiving inadequate treatment. Results suggest a need for better identification and treatment of PTSD in the primary care setting.

*(J Clin Psychiatry 2003;64:1230–1236)*

*Received Oct. 31, 2002; accepted April 16, 2003. From the Department of Psychiatry and Human Behavior, Brown University Medical School, Providence, R.I. (Drs. Rodriguez, Weisberg, Pagano, Machan, and Keller); and the Department of Family Medicine, Boston University School of Medicine, Boston, Mass. (Dr. Culpepper).*

*The Primary Care Anxiety Project (PCAP) is supported through an unrestricted grant from Pfizer Pharmaceuticals, Inc., New York, N.Y.*

*Portions of this paper were presented at the 110th annual meeting of the American Psychological Association, Aug. 22–25, 2002, Chicago, Ill., and the 23rd annual meeting of the Anxiety Disorders Association of America, March 27–30, 2003, Toronto, Ontario, Canada.*

*Dr. Rodriguez has received grant/research support from Pfizer. Dr. Weisberg has received grant/research support from and been a consultant for Pfizer. Dr. Culpepper has been a consultant for Abbott, Forest Laboratories, Janssen, Lilly, Pharmedica, Pfizer, and Wyeth-Ayerst. Dr. Keller has financial associations with many companies that produce psychoactive agents. The associations include receipt of research support, consultancies, and participation in advisory boards.*

*Investigators participating in PCAP are listed at the end of this article.*

*Corresponding author and reprints: Benjamin F. Rodriguez, Ph.D., Department of Psychology, Southern Illinois University-Carbondale, Life Science II, Room 281, Mailcode 6502, Carbondale, IL 62901 (e-mail: benrodii@siu.edu).*

Posttraumatic stress disorder (PTSD) is an often-debilitating anxiety disorder that can severely impair the lives of individuals exposed to significant traumatic events. Individuals with the disorder, a usually chronic condition, often experience sustained impairment in several domains of psychosocial functioning.[1–3] Although the disorder was originally conceptualized as an extreme psychological reaction to what were believed to be infrequent human experiences (see DSM-III,[4] DSM-III-R,[5] and DSM-IV[6] diagnostic criteria), recent research suggests that both exposure to traumatic events and the subsequent development of PTSD are more common than previously thought.[7,8]

Given the severity of symptoms and the usually significant psychosocial impairment associated with PTSD, it might be expected that most individuals with the disorder would seek and receive mental health treatment. However, empirical studies indicate that individuals with PTSD infrequently receive mental health treatment,[2] with poor recognition of the disorder in both academic and community mental health settings.[9,10] Since PTSD represents significant burdens to individuals in terms of

suffering and impairment, to the families of these individuals, and to society in general through direct and indirect economic costs,[11–14] a better understanding of the factors associated with PTSD patients receiving appropriate treatment is necessary.

Recent trends in the health care delivery system make the general medical setting an important area in which to study factors related to the treatment of PTSD patients. Research shows that individuals with mental disorders are more likely to seek treatment from a non-psychiatric physician than from a mental health professional.[15] Individuals exposed to trauma frequently utilize health care services.[10,11] Both exposure to traumatic events in general and the development of PTSD in particular are associated with poor physical health and increased rates of physician-diagnosed medical conditions.[16–22] Moreover, people with PTSD often engage in behaviors associated with negative effects on health, such as alcohol and drug abuse/dependence, smoking, and risky sexual behavior,[16,23,24] that increase the likelihood that PTSD patients will encounter the primary care system. A recent study[25] of primary care patients found that a notable proportion of patients would meet diagnostic criteria for full or partial PTSD. Another survey suggests that over 70% of patients with PTSD used medical services in the past 6 months.[2] Since the majority of studies to date have focused on the characteristics of PTSD and its treatment in specially defined, homogeneous populations such as combat veterans, motor vehicle accident victims, crime victims, rape victims, and child sexual abuse victims, studies examining the psychopharmacologic and psychosocial treatment of PTSD patients in the more heterogeneous primary care population are particularly needed.

The present study explores the nature of mental health services received by primary care patients with PTSD enrolled in the Primary Care Anxiety Project (PCAP), a prospective, naturalistic, longitudinal study of the course of anxiety disorders in primary care and general medical patients. We have previously reported on the nature of trauma and PTSD in primary care.[21,26] In this article, we describe the treatment received by primary care patients with PTSD. First, we report the rates and types of mental health treatment received by PTSD patients in primary care and general medical practices, including the characteristics of any psychosocial treatment being received and the rates of specific psychopharmacologic interventions. Second, we identify the sociodemographic and clinical factors that are predictive of which PTSD patients will and will not receive mental health treatment. Given the high rates of psychiatric comorbidity that typify PTSD patients,[27] we hypothesized that having a current comorbid anxiety or mood disorder would increase the likelihood that a PTSD patient would receive mental health treatment. Finally, we provide descriptive data on self-reported reasons patients provide for not engaging in mental health treatment.

## METHOD

PCAP is an ongoing longitudinal study of the clinical course and outcomes of patients with anxiety disorders, with the main inclusion criteria being that patients had a general medical appointment on the day of recruitment and were found to have an anxiety disorder. PCAP is not a treatment study, nor is it a specific examination of the treatment of PTSD and other anxiety disorders within the context of a primary care setting. Institutional approval for PCAP was obtained from Brown University as well as the institutional review boards for all data collection sites. PCAP enrolled 539 patients with recognized or unrecognized anxiety disorder(s) originally identified by screening patients visiting their primary care providers. Once enrolled, participants were contacted for an in-person or telephone follow-up interview at 6 and 12 months and annually thereafter. Data were gathered from July 1997 to May 2001.

### Participants

For this report, participants were 197 primary care patients diagnosed with PTSD using the Structured Clinical Interview for DSM-IV (SCID-IV).[28] This sample represents a subset of the 539 primary care patients originally enrolled in PCAP.

### Recruitment Sites

Participants were recruited from 15 internal medicine and family medicine practices in New Hampshire, Massachusetts, Rhode Island, and Vermont. Five sites were located in rural areas, and 10 sites were in urban or suburban areas. Four of the sites were small private practices, 4 were freestanding clinics with a university affiliation, and 7 were large university teaching hospital–based clinics.

### Recruitment and Inclusion Criteria

Recruitment for PCAP began in July 1997 and concluded in May 2001. For inclusion, participants had to be a minimum of 18 years of age, English speaking, and scheduled for a general medical appointment on the day of recruitment. Participants were excluded from the study if they were suffering from active psychosis, had no current address or phone number, or were pregnant.

Participants were recruited on the day of a visit to the primary care or general medical practice. Research assistants approached 14,320 eligible patients in practice waiting rooms. Of these patients, 4383 potential participants (31% of approached patients) completed a questionnaire screening for symptoms of anxiety; 9937 refused to complete the screening form. Of those potential participants who completed the screener, 2785 participants (64%) screened positive for anxiety symptoms and were scheduled for an assessment with the SCID-IV. The SCID-IV

was administered to 1634 potential participants who screened positive (456 refused the SCID-IV, 665 repeatedly cancelled or failed to show up, and 30 did not complete the SCID-IV because of limited understanding of spoken English). Current anxiety disorders, current major depressive disorder, and lifetime alcohol and substance abuse and dependence were assessed during the SCID-IV interview. Of the 1634 individuals who completed the SCID-IV, 539 met criteria for 1 or more anxiety disorders and were enrolled in the PCAP study.

### Measures

***Anxiety screener.*** The screening questionnaire developed for PCAP (unpublished; available from the authors on request) is a self-report measure inquiring about the presence of essential features of DSM-IV anxiety disorders. The form was designed to be highly sensitive to the presence of any anxiety disorder symptoms. In a validation study of this measure, 64 primary care patients completed both the screening form and the SCID-IV. The interviewers administering the SCID-IV were blind to the results of the screening measure. Of 38 individuals who screened negative, none were positive for an anxiety disorder according to the SCID-IV; there were no false negatives. Twenty-six participants screened positive. Eight (31%) of these individuals were true positives (SCID-IV positive for an anxiety disorder). Eighteen (69%) were false positives (screen positive–SCID-IV negative). One participant who screened negative was excluded due to psychotic symptoms.

***Clinical interview.*** All clinical diagnoses were established by means of diagnostic interviews that employed the SCID-IV.[28] In PCAP, the psychotic screen, mood, anxiety, substance use, and eating disorders modules of the SCID-IV were administered. As part of the SCID-IV interview, Global Assessment of Functioning (GAF)[6] scores were assigned to participants as a measure of their overall symptomatic and functional impairment.

***Trauma history.*** Participant trauma history was assessed during administration of the PTSD section of the SCID-IV using a revised version of the Trauma Assessment for Adults (TAA) (unpublished interview protocol; H. S. Resnick, Ph.D.; C. L. Best, Ph.D.; J. R. Freedy, M.D.; et al., 1993). The TAA is a structured interview that assesses participant exposure to a variety of extreme events including military combat, motor vehicle accidents, physical and/or sexual assault, and witnessing the severe injury or assault of another person.

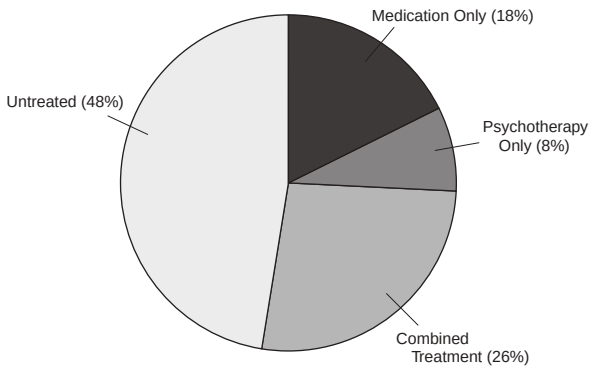
***Mental health treatment.*** Information on current mental health treatment was gathered in several ways. First, information on psychotropic medication was obtained using the Psychotropic/Auxiliary Drug Treatment Schedule, an interviewer-administered form that asks participants which, if any, psychotropic medications they are currently taking and the dosage. This form is part of the Longitudinal Interval Follow-up Evaluation,[29] a psychometrically valid and reliable interview schedule[30] that has been employed successfully in several other large-scale longitudinal studies conducted in our department. Data were gathered on both current medications and dosage and medications and dosage in the 3 months prior to study intake. Second, current psychosocial treatment was assessed using a Types of Mental Health Treatment Received form (unpublished; available from the authors on request) modified from a preexisting version for use in PCAP. The survey asked participants if they were currently receiving treatment in specific psychotherapeutic modalities including individual therapy, group therapy, family/couples therapy, self-help groups, day treatment, inpatient hospital treatment, residential treatment, and medication management. Data were gathered for both current treatment and treatment during the 6 months prior to intake. Finally, information about the characteristics of any psychosocial treatments being received by participants was gathered using the Psychosocial Treatments Interview-Revised (PTI-R).[31] The PTI-R is also an interviewer-administered questionnaire that asks participants whether their therapist or psychiatrist employs any of 39 different psychotherapy techniques during their sessions. The PTI-R has good reliability and validity.[31]

***Treatment not received.*** For study participants not currently receiving mental health treatment, interviewers assessed participants' reasons for not receiving/engaging in treatment using a Treatment Not Received/Non-Compliance With Treatment form (unpublished; available from the authors on request) designed for use in PCAP. The survey questionnaire asked participants if psychotherapy or medications had been recommended to them by their physician, if they wanted or thought they needed counseling or medication, and their reasons for not receiving psychotherapy and/or medication. Interviewers coded participants' stated reasons for not receiving treatment into any of 13 categories including doctor did not recommend/prescribe treatment, insufficient money to pay for treatment, treatment not covered by health insurance, treatment not helpful in the past, patient does not believe he or she has a problem, does not believe in treatment for his or her problems, too busy or treatment is inconvenient, worried about record of treatment, worried about stigma of treatment, embarrassed if others discovered about treatment, did not know about seeking treatment or felt no services were available, medication side effects, and other reason.

### Statistical Analyses

Analyses were conducted using SAS version 8.2 (SAS Institute, Cary, N.C.). PROCFREQ, PROC MEANS, PROC T-TEST, PROC NPAR1WAY, and PROC LOGISTIC were used. All t tests conducted were 2-tailed.

Figure 1. Percentage of Primary Care Posttraumatic Stress Disorder Participants Receiving Various Treatment Modalities (N = 196)




## RESULTS

### Sample Characteristics

Of the 197 PTSD patients, the majority (80%) were female with a mean age of 38.1 years (SD = 10.9 years); 26% were single, 42% were married or living as if married, and 28% were divorced (data unavailable for 4%). Participants were fairly well educated, with 89% of the sample reporting having at least a high school diploma or general equivalency diploma (GED) and 33% having an associate's degree or higher. The sample was 80% white, 7% African American, 5% Hispanic, 3% Asian, and 5% other ethnic group.

Twenty-eight (14%) of the participants had comorbid panic disorder, 47 (24%) had comorbid panic disorder with agoraphobia, 7 (4%) had comorbid agoraphobia without history of panic disorder, 20 (10%) had comorbid generalized anxiety disorder (GAD), and 65 (33%) had comorbid social anxiety disorder. Major depressive disorder (MDD) was a comorbid condition in 84 (43%) of PTSD participants at the time of intake.

### Treatment Received

Figure 1 depicts the treatment status of PCAP participants with PTSD. Slightly more than half were receiving mental health treatment of some form at intake. For those receiving mental health treatment, psychopharmacologic therapy was the most common modality. Psychotherapy was usually received in combination with medication, with only 8% of participants reporting receiving psychotherapy only.

### Characteristics of Somatic Treatment

Forty-three percent (N = 84) of PTSD patients were receiving medications. Selective serotonin reuptake inhibitors (SSRIs) were taken by 25% (N = 50) of PTSD patients, and tricyclic antidepressants were taken by 5% (N = 10). However, when comorbid MDD was considered, of PTSD patients without MDD (N = 113), only 13% (N = 15) were receiving an SSRI and only 3% (N = 3) were receiving a tricyclic antidepressant. The difference in SSRI usage among PTSD patients with and without comorbid MDD was statistically significant ($\chi^2 = 19.70$, df = 1, $p < .0001$). The difference in tricyclic antidepressant usage based on MDD comorbidity approached significance ($\chi^2 = 3.10$, df = 1, $p = .08$).

Benzodiazepines were being taken by 14% (N = 28) of PTSD patients, with another 4% (N = 8) receiving another type of anxiolytic medication (e.g., buspirone). The combination of an antidepressant and a benzodiazepine was being taken by only 12% (N = 24) of PTSD patients. Seventeen percent (N = 14) of PTSD patients with MDD were taking a benzodiazepine, and 13% (N = 14) of PTSD patients without MDD were taking a benzodiazepine. There were no significant differences in benzodiazepine usage on the basis of MDD comorbidity ($\chi^2 = 0.62$, df = 1, $p = .43$).

### Characteristics of Psychosocial Treatment

Supportive and psychodynamic techniques were among the most common psychosocial interventions received by PTSD patients, endorsed as "frequently" or "sometimes" used in therapy by 32% (N = 63) and 29% (N = 58) of patients, respectively. Family-oriented therapy techniques were reportedly received by 24% (N = 47) of patients. Despite the established efficacy of cognitive-behavioral therapy (CBT) in the treatment of anxiety and mood disorders, only 22% (N = 44) of patients reported that any cognitive or behavioral techniques were being used as part of their mental health treatment. Moreover, exposure-based behavioral interventions, which have established efficacy for treatment of anxiety, were being received by less than 16% (N = 32) of PTSD patients.

### Predictors of Receiving Treatment

A series of logistic regressions was conducted to determine if any demographic or clinical factors were significantly associated with PTSD patients receiving any treatment, medication treatment, psychotherapy, and medication and psychotherapy in combination. Each of these regressions included participant age, GAF[6] scores, total number of lifetime traumas experienced, and diagnostic comorbidity for MDD, panic disorder, panic disorder with agoraphobia, social anxiety disorder, GAD, and agoraphobia without history of panic disorder (all dummy coded) as predictors. The results of these analyses can be found in Table 1.

PTSD patients with higher GAF scores (indicating better psychosocial functioning) were significantly less likely to be receiving any mental health treatment, as well as medication treatment and psychotherapy specifically.

**Table 1. Significant Demographic and Clinical Predictors of Receiving Specific Treatments Among 197 Primary Care Patients With Posttraumatic Stress Disorder[a]**

| Treatment | Overall $\chi^2$ | Predictor | B | SE | Wald $\chi^2$ | Odds Ratio |
|---|---|---|---|---|---|---|
| Any treatment | 30.53§ | GAF | –0.07 | 0.02 | 8.59‡ | 0.93 |
| | | MDD | 0.62 | 0.35 | 3.21* | 1.86 |
| Medication | 42.83‖ | GAF | –0.09 | 0.03 | 11.10§ | 0.92 |
| | | PDA | 0.77 | 0.39 | 3.86† | 2.17 |
| Psychotherapy | 18.41† | GAF | –0.06 | 0.02 | 6.96‡ | 0.94 |
| | | No. of traumas | –0.20 | 0.10 | 4.08† | 0.82 |
| | | GAD | –1.13 | 0.60 | 3.48* | 0.32 |
| | | AWOPD | 1.32 | 0.80 | 2.73* | 3.74 |

[a]All analyses included as predictors participant age, GAF score, number of different lifetime traumas, and comorbid diagnoses of MDD, panic disorder, PDA, social phobia, GAD, and AWOPD. Only significant predictors are shown. For all analyses, df = 9.
*p < .10.
†p < .05.
‡p < .01.
§p < .001.
‖p < .0001.
Abbreviations: AWOPD = agoraphobia without a history of panic disorder, GAD = generalized anxiety disorder, GAF = Global Assessment of Functioning, MDD = major depressive disorder, PDA = panic disorder with agoraphobia.

In addition, PTSD patients with comorbid panic disorder with agoraphobia were over twice as likely as other patients to be receiving medication, while each additional lifetime trauma experienced significantly decreased the likelihood that PTSD patients were receiving psychotherapy by approximately 18%. There were also several nonsignificant, but noteworthy, trends, including the following: comorbid MDD nearly doubled the likelihood of receiving any treatment (p = .073), comorbid GAD decreased the likelihood of being in psychotherapy (p = .06), and comorbid agoraphobia without history of panic disorder increased the likelihood of being in psychotherapy (p = .098). None of the selected demographic or clinical factors were significantly associated with PTSD patients receiving medication and psychotherapy in combination ($\chi^2$ = 9.00, df = 9, p = .44).

### Reasons for Not Receiving Treatment

For PTSD patients who were not currently engaged in mental health treatment, responses to the Treatment Not Received form were examined to ascertain the most common reasons these patients gave for not being treated. Data were available on 64 patients not receiving medications and 72 patients not currently receiving psychotherapy. Of these patients, 25% (N = 16) of those not on medication felt they needed it, and 49% (N = 35) of those not in psychotherapy believed they needed counseling for their emotional problems.

With regard to specific reasons reported for not receiving psychopharmacologic treatment, 45% (N = 29) of patients not taking medications reported that their physician did not recommend medications to them, and 33% (N = 21) reported that they did not believe in taking medications as a way of dealing with the particular emotional problems they were experiencing. Additionally, 25% (N = 16) reported not believing they had a problem for which medication treatment was necessary. Medication side effects were reported as a reason for not taking medication by 19% (N = 12) of the sample, and the ineffectiveness of past attempts at psychopharmacologic treatment was the reason 11% (N = 7) of patients did not take medication. Only 6% (N = 4) of those who were not taking medications reported being too busy for treatment or the treatment being too inconvenient.

For those patients not engaged in psychosocial treatment, 26% (N = 19) did not receive psychotherapy because they did not believe they had a problem for which treatment was necessary, and 25% (N = 18) reported they did not believe in engaging in psychotherapy as a way of dealing with their particular emotional problems. Additionally, 19% (N = 14) reported psychotherapy was not recommended to them by their physician. Being too busy for treatment or the treatment being inconvenient was endorsed as a reason for not engaging in treatment by 18% (N = 13) of participants who did not engage in psychotherapy. Ineffectiveness of past attempts at psychotherapy was reported as a reason for not receiving treatment by 17% (N = 12); 13% (N = 9) reported they did not engage in psychotherapy due to financial reasons.

## DISCUSSION

Despite the severe symptoms and impairment usually associated with the disorder, nearly half (48%) of the primary care patients with PTSD enrolled in our study were not engaged in any mental health treatment. While consistent with reported rates of treatment among PTSD patients found in other studies,[2] this finding is nonetheless noteworthy and helps to underscore the need for continued efforts to identify and treat PTSD within this population.

One limitation of the present study stems from the issue of diagnostic comorbidity. Other anxiety and mood disorders are often comorbid with PTSD.[27,32] The typical PCAP patient with PTSD had more than 3 current comorbid anxiety or mood disorders and a lifetime history of more than 4 anxiety or mood disorders. Since our assessments did not differentiate between the specific psychiatric symptoms or symptom clusters for which the patient was receiving treatment, we cannot determine if it was PTSD or if it was some other disorder that resulted in these patients receiving treatment. Indeed, we cannot even be certain if the symptoms of PTSD were being addressed in treatment at all. Thus, even though these results provide useful information as to the frequency and types of treatment that primary care patients with PTSD are engaged in, our results most likely overestimate the rates

at which PTSD specifically is being treated in this population.

Even more notable than the substantial percentage of primary care patients with PTSD who were not receiving mental health treatment was the low rate of psychosocial treatments being received by those in treatment. Only a third of the PTSD patients in the sample indicated that psychological treatment interventions were being employed by their clinicians as part of their treatment, with supportive and psychodynamic therapy techniques being among the most common. Specific cognitive and behavioral therapy techniques were used fairly infrequently in the treatment of these patients, with only 16% of psychotherapeutically treated PTSD patients reporting receiving any exposure therapy. Even though recent years have seen growing evidence supporting the efficacious nature of CBT for the treatment of anxiety disorders in general[33] and PTSD in particular,[34] our data suggest that such evidence-based treatments are failing to filter down to the level of clinical practice.

Several factors significantly predict that PTSD patients will receive mental health treatment, including severity of impairment and diagnostic comorbidity. PTSD patients who were in treatment had significantly lower GAF scores (indicating more impairment) than those not engaged in treatment. Additionally, PTSD patients with comorbid panic disorder with agoraphobia were more likely to be receiving treatment. There were also notable trends for comorbid MDD and comorbid agoraphobia without history of panic disorder to increase the likelihood of PTSD patients being treated. That participants with greater impairment and more psychopathology were more likely to receive treatment is an intriguing finding in treatment research, possibly suggesting that these individuals may be more easily clinician-identified and/or self-identified due to the severity of their illnesses. Similarly, that MDD and panic disorder with agoraphobia were associated with receiving mental health treatment among PTSD patients is also not surprising given the growing recognition of the commonness of these illnesses in medical settings.[35]

As a final area of interest, we examined the reasons participants reported for not seeking mental health treatment for their emotional problems. Prominent among these reasons was that physicians had not recommended either psychopharmacologic or psychosocial treatment to the patient. These data are particularly troublesome given the increasing role of primary care physicians as gatekeepers to the rest of the health care and mental health care delivery systems.[36] However, it must also be noted that patients reported their own beliefs that they did not have problems for which treatments were necessary and their lack of belief in mental health treatment as 2 prominent reasons for not seeking help for their emotional problems. In total, these results indicate a continued need for educational efforts for physicians, mental health professionals, and patients that are focused on the recognition of not only PTSD but all mental illness, as well as the effectiveness of available therapeutic interventions.

A number of books have been published recently describing the empirical basis, efficacy, and implementation of exposure and other CBT interventions with PTSD patients (e.g., references 37–40). Moreover, the International Society for Traumatic Stress Studies has published clinical practice guidelines for the treatment of PTSD,[34] as well as a volume that includes an extensive review of the literature for all treatment modalities commonly used with PTSD patients.[41] These publications would be good sources of information for clinicians interested in learning more about the use of CBT methods with PTSD patients.

*Drug name:* buspirone (BuSpar and others).

*Acknowledgment:* PCAP is conducted with the participation of the following investigators: Martin B. Keller, M.D. (Chairperson); Risa Weisberg, Ph.D.; Regina Dolan, Ph.D.; Steven Bruce, Ph.D.; Meredith Warshaw, M.S.S., M.A. (Brown University Medical School); Robert Birnbaum, M.D. (Beth Israel Deaconess Medical Center); Larry Culpepper, M.D. (Boston University Medical Center, Codman Square Community Health Center); Mark Fagan, M.D. (Rhode Island Hospital); David Fried, M.D. (Coastal Medical Center, Renaissance Group); Gertrude Manchester, M.D. (UMASS Medical Center); Donya Powers, M.D. (Partners in Family Health, Inc.); John Wasson, M.D. (Dartmouth Medical School COOP); Ernst Berndt, Ph.D.; and Stan Finkelstein, M.D. (Massachusetts Institute of Technology).

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