

# PTSD in Urban Primary Care: High Prevalence and Low Physician Recognition

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**BACKGROUND:** Posttraumatic stress disorder (PTSD) is associated with medical and psychological morbidity. The prevalence of PTSD in urban primary care has not been well described.

**OBJECTIVE:** To measure the prevalence of PTSD in primary care patients overall and among those with selected conditions (chronic pain, depression, anxiety, heavy drinking, substance dependence (SD), irritable bowel syndrome (IBS), and immigrant status).

**DESIGN:** Cross-sectional study.

**PARTICIPANTS:** English-speaking patients aged 18–65 years old, awaiting primary care appointments in an urban academic medical center, were eligible for enrollment to determine PTSD prevalence ( $N=509$ ). Additional eligible participants ( $n=98$ ) with IBS or SD were subsequently enrolled.

**MEASUREMENTS:** PTSD (past year) and trauma exposure were measured with Composite International Diagnostic Interview. We calculated the prevalence of PTSD associated with depression, anxiety, heavy drinking, SD, IBS, and chronic pain. Only the analyses on heavy drinking, SD, and IBS used all 607 participants.

**RESULTS:** Among the 509 adults in primary care, 23% (95% CI, 19–26%) had PTSD, of whom 11% had it noted in the medical record. The prevalence of PTSD, adjusted for age, gender, race, and marital and socioeconomic statuses, was higher in participants with, compared to those without, the following conditions: chronic pain (23 vs 12%,  $p=.003$ ), major depression (35 vs 11%,  $p<.0001$ ), anxiety disorders (42 vs 14%,  $p<.0001$ ), and IBS (34 vs 18%,  $p=.01$ ) and lower in immigrants (13 vs 21%,  $p=.05$ ).

**CONCLUSIONS:** The prevalence of PTSD in the urban primary care setting, and particularly among certain high-risk conditions, compels a critical examination of optimal approaches for screening, intervention, and referral to PTSD treatment.

**KEY WORDS:** underserved populations; PTSD; prevalence.

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## INTRODUCTION

Media coverage of the 2001 World Trade Center attacks increased American awareness of posttraumatic stress disorder (PTSD) as an important psychiatric diagnosis.<sup>1,2</sup> Recent documentation of the burden of mental disorders, including PTSD, among US soldiers returning from Iraq<sup>3,4</sup> and people affected by Hurricane Katrina<sup>5–7</sup> further increased awareness of PTSD risk after exposure to trauma. Posttraumatic stress disorder is characterized by disabling symptoms of reexperiencing, avoidance, and numbing after a significant traumatic event.<sup>8</sup> The World Health Organization and others have substantiated the major impact of posttraumatic mental disturbance on social and health functioning.<sup>9,10</sup>

In primary care settings, the prevalence of PTSD depends upon the features of the population studied and the methods for participant recruitment and assessment. In a nationally representative US sample, Kessler et al.<sup>11</sup> found a lifetime PTSD prevalence of 6.8%; 61% of males and 51% of females reported trauma exposure.<sup>12</sup> Breslau et al.<sup>13</sup> reported 90% lifetime prevalence of trauma and 9% probability of developing PTSD after trauma in an urban sample in Detroit. Stein and colleagues<sup>14</sup> found a 2% prevalence of current PTSD in a middle-class, university-affiliated primary care practice in San Diego. In a representative sample of national health clinics in Israel, 9% of patients had current PTSD.<sup>15</sup> One-third of African-American primary care patients in an urban setting met PTSD diagnostic criteria.<sup>16</sup> Prevalence at veterans affairs (VA) health facilities ranges from 11.5% (current) to 27% (lifetime) PTSD.<sup>17,18</sup> Female gender, being divorced or widowed, other psychiatric or substance-use disorders, and exposure to certain traumas increase PTSD risk.<sup>12,13,19</sup>

Portions of this work were presented at the annual meeting of the Society of General Internal Medicine, May 2005, New Orleans, LA, at the annual meeting of the College on Problems of Drug Dependence, June 2005, Orlando, FL, and at the annual meeting of the American Public Health Association, November 2004, Washington, DC.

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However, these studies may not accurately estimate PTSD prevalence because of selective recruitment, nondiagnostic assessments, and low study participation.<sup>14,16,19–21</sup> Only one of these studies was conducted in a primary care practice in an urban, impoverished, and under represented minority population, a group at risk for PTSD because of high trauma exposure and low levels of social support.<sup>22</sup> PTSD is clinically under-recognized; of patients with PTSD, primary care providers recognized 2% in Israel and 47% in a VA setting.<sup>15,17</sup> These findings are consistent with extensive literature on clinician under-recognition of other mental disorders.<sup>23</sup>

Accurate determination of PTSD prevalence in primary care settings serving patients at high risk is important for several reasons. First, PTSD is associated with increased health-care utilization.<sup>4,24–26</sup> Second, PTSD and trauma exposure have been associated with conditions commonly treated by primary care clinicians: somatization functional impairment, depression, anxiety, chronic pain, irritable bowel syndrome (IBS) and substance-use disorders.<sup>15,18,20,27–42</sup> Apart from depression,<sup>16</sup> these associations have not been evaluated in primary care. Additionally, immigrant and refugee populations have high exposure to violence and merit further evaluation.<sup>43</sup> If PTSD is sufficiently prevalent in urban primary care patients or in those with certain common conditions, then it fulfills a key criterion for a clinical screening recommendation.<sup>44</sup> Determining if primary care patients with specific comorbid conditions have particularly high prevalence of current PTSD strengthens the case and may even suggest an approach for targeted screening in primary care.

We conducted a cross-sectional study to evaluate the prevalence of and risk factors for PTSD in primary care patients at an urban hospital-based outpatient department. We assessed the prevalence of PTSD among those with immigrant status, depression, generalized anxiety or panic disorder, chronic pain, IBS, heavy drinking, and substance dependence (SD), and we determined also whether PTSD was identified by physicians caring for these patients. We hypothesized that PTSD prevalence would be high, especially in patients with selected characteristics, and under-recognized by clinicians. We also hypothesized that clinicians might identify PTSD as depression, a more familiar mental illness.

## METHODS

### Study Design

We interviewed a consecutive sample of primary care patients at the outpatient department of an urban university-affiliated hospital to examine overall prevalence of PTSD and its prevalence among patients with seven selected conditions: being an immigrant to the United States, major or other depression, generalized anxiety or panic disorder, heavy drinking, SD, IBS, and chronic pain. We also reviewed medical records for documentation of PTSD and depression.

### Participants

Patients visiting the Internal Medicine and Family Medicine clinics were eligible if they spoke English, were 18–65 years old, and had a scheduled appointment with a primary care clinician. Patients were excluded if they could not be interviewed alone or did not appear to understand study procedures. After a planned minimum study enrollment of 100

participants per selected condition was met for depression, anxiety, pain, and immigrant status with the first 509 enrolled participants (“consecutive sample”), enrollment was limited to eligible patients with heavy drinking, drug use or IBS, or none of the selected conditions (control group) to permit planned subgroup analyses (“oversampled group”,  $n=98$ ). Enrollment occurred from February 2003 to September 2004.

### Recruitment and Enrollment

Interviewers approached consecutive patients upon arrival for appointments and screened them for eligibility. Eligible patients were asked to participate in an interview about stress and health. Each participant gave written informed consent. Study participants were compensated with \$10, and they received safety referrals upon interview completion. Interviews not completed before clinician visit were completed immediately afterward. Boston University Medical Center’s Institutional Review and HIPAA Privacy Review Boards approved the study. A Certificate of Confidentiality was obtained from the National Institutes of Health.

### Data Collection

**Screening.** The self-administered screening tool contained 19 questions about the following: demographics, symptoms of depression and anxiety (2 questions from the PRIME-MD screener),<sup>45</sup> IBS (4 definition questions from the ROME II Integrative questionnaire),<sup>46</sup> quantity and frequency of alcohol use in the past 30 days,<sup>47</sup> use of heroin or cocaine in the past month, and chronic pain in the past 3 months.<sup>48</sup>

**Interview.** Interview included demographic questions, the Composite International Diagnostic Interview (CIDI) version 2.1 PTSD module,<sup>8,49</sup> the Chronic Pain Definitional Questionnaire,<sup>48</sup> the Patient Health Questionnaire (PHQ)<sup>45</sup> modules measuring depression diagnoses (major and other depression in the past 2 weeks) and anxiety disorder (generalized anxiety and/or panic disorder in the past 4 weeks), and the CIDI-Short Form (CIDI-SF) substance-use disorder modules.<sup>49</sup> The interview lasted for approximately 30 min.

**Medical Record Review.** Using standardized data-collection forms, researchers trained in chart abstraction reviewed patient electronic medical records (EMRs), including all outpatient and emergency department records and inpatient discharge summaries for the 12 months before and including the date of interview, to identify documentation of ICD-9 coded PTSD or depression in the problem list or in the visit assessment. All clinical encounters used EMR documentation.

**Dependent Variables: Trauma Exposure, PTSD, Medical Record Documentation.** Current (past 12 months) and lifetime PTSD were diagnosed using CIDI version 2.1.<sup>49</sup> The CIDI includes 9 questions about specific traumatic events and 2 open-ended questions. The research team classified open-ended responses as traumatic or nontraumatic according to DSM-IV guidelines for qualifying trauma.<sup>8</sup> We defined trauma exposure as self-reported experience of any category of qualifying trauma. Multiple experiences of a single category of trauma (e.g., rape

or physical assault) were counted as one trauma exposure. Clinician recognition of PTSD and depression was defined as documentation of this diagnosis (PTSD or depression, respectively) in the active problem list or in the free text of a note in the medical record.

**Independent Variables and Covariates.** Independent variables included immigrant status, IBS, chronic pain, anxiety, depression, heavy drinking, and SD. Immigrants were participants born outside the US or Puerto Rico. Irritable bowel syndrome was present if participants endorsed diagnostic criteria from the Rome II Integrative Questionnaire.<sup>46</sup> Chronic pain was present if participants endorsed pain for 3 months or more on the Chronic Pain Definitional Questionnaire.<sup>48</sup> Current anxiety disorder was present if participants met diagnostic criteria for generalized anxiety and/or panic disorder in the past month according to the PHQ.<sup>45</sup> Current depressive disorder was classified into major or other depression in the past 2 weeks according to the PHQ.<sup>45</sup> Heavy drinking in the past month was defined using the National Institute of Alcohol Abuse and Alcoholism guidelines.<sup>47</sup> Substance dependence included alcohol dependence and/or drug dependence in the past 6 months as determined by the CIDI-SF.<sup>50</sup> Covariates were age, gender, income, employment, marital status, and race.

**Analyses**

We used descriptive analyses to determine the prevalence of current and lifetime PTSD and trauma exposure. Bivariate analyses compared the prevalence of PTSD and trauma exposure in people with and without 7 selected conditions. We employed multivariable logistic regression to adjust for covariates. Adjusted proportions were calculated using the mean values of background covariates; *P* values comparing adjusted proportions are based on the regression coefficients for the group variable. Bivariate analyses compared PTSD or depression EMR documentation with research interview diagnoses. We used the consecutive sample (*N*=509) for most analyses. Analyses examining heavy drinking, SD, and IBS utilized the enhanced sample (the consecutive sample plus the oversampled group, *n*=98) of 607 participants.

**RESULTS**

**Participant Demographic and Clinical Characteristics**

Of 627 eligible patients, 509 (81%) were enrolled in the consecutive sample (Fig. 1). See Table 1 for the demographic and clinical characteristics of the sample. Gender differences were notable for race, immigrant status, income, other depression, anxiety, and SD. Compared to US-born people, immigrants were more likely to be employed (63 vs 47%) and to be married or living with a partner (37 vs 23%).

**PTSD and Trauma Prevalence**

Thirty-four percent (95% CI, 30–38%) of the consecutive sample met the diagnostic criteria for lifetime PTSD and 23% (CI 19–26%) for current PTSD. Median duration of PTSD symptoms was 6 years (range 1 month–44 years). Twenty-six percent (CI 21–32%) of women and 19% (CI 14–24%) of men met the criteria

for current PTSD (*p*=.04). Trauma exposure was very common (79%), with 65% reporting exposure to more than one trauma category. See Appendix for details of trauma exposure.

Current PTSD was more common in participants with incomes <\$20,000 (30 vs 14%, *p*<.0001), unemployed or disabled (30 vs 16%, *p*=.0001), or separated/divorced (31 vs 15% for married, *p*=.009; or 31 vs 22% for never married, *p*=.009).

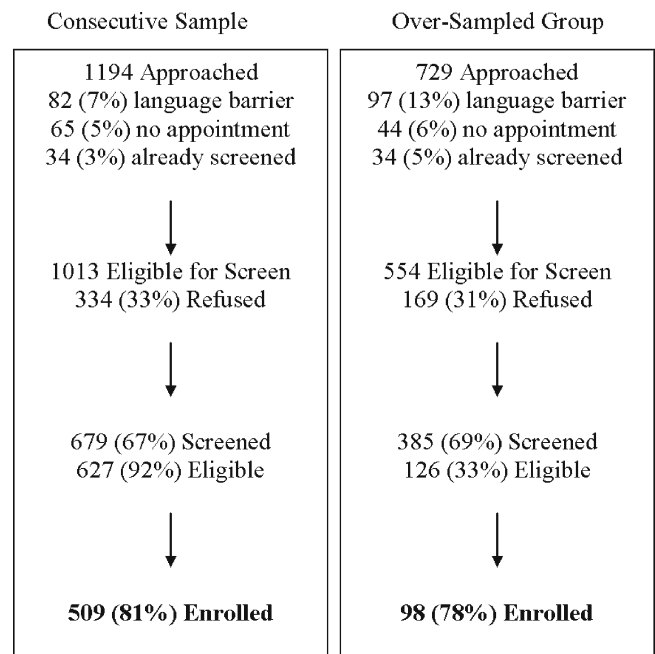
**Comorbid Conditions**

PTSD was significantly more common among participants with at least one comorbid condition (depression, pain, IBS, anxiety, and/or SD) than among those with none of these conditions (27 vs 8%, *p*<.0001). Ninety-one percent of participants with current PTSD had at least one comorbid condition compared to 71% of those without PTSD. Of note, 75% of the entire consecutive sample (including those with PTSD) met the diagnostic criteria for at least one comorbid condition. In those with a comorbid condition, 28% had PTSD, whereas in those without a comorbid condition, 91% did not have PTSD.

**Relationship of Comorbid Conditions with PTSD Prevalence: Adjusted Analyses**

In the consecutive sample, current PTSD was less common among immigrants compared to nonimmigrants. Current PTSD was more common among participants with chronic pain, anxiety disorders, and both major and other depression. Adjusted analyses of lifetime PTSD prevalence in people with comorbid conditions echoed the current PTSD findings (Table 2).

Adjusted analyses in the enhanced sample revealed that current, but not lifetime, PTSD was significantly more common in participants with IBS. Current PTSD prevalence was not



**Figure 1. Study enrollment of patients in primary care. Consecutive sample: patients approached consecutively after registering for appointment. Oversampled group: consecutive sample criteria plus positive screen for irritable bowel symptoms, heavy drinking in past month, use of drugs in past month, or none of 6 select conditions (see text for details).**

**Table 1. Demographic and Clinical Characteristics of Participants Recruited in Primary Care (Consecutive Sample)**

Variable	Total (N=509)	Male (n=251)	Female (n=258)
		N (%)	
Mean age in years (SD)	42 (11.3)	42 (11.1)	41 (11.5)
Race/Ethnicity			
Black/African American	300 (59)	137 (55)	163 (63)
White	98 (19)	60 (24)	38 (15)
Hispanic/Latino	40 (8)	25 (10)	15 (6)
Other	71 (14)	29 (12)	42 (16)
Immigrant status			
USA- or Puerto Rico-born	365 (72)	194 (77)	171 (66)
Marital Status			
Married/Living with partner	137 (27)	67 (27)	70 (27)
Separated/Divorced	110 (22)	55 (22)	55 (21)
Widowed	19 (4)	5 (2)	14 (5)
Never married/not living with a partner	243 (48)	124 (49)	119 (46)
Employment status			
Full-/Part-time	234 (46)	118 (47)	116 (45)
Student	28 (6)	11 (4)	17 (7)
Unemployed or disabled	247 (49)	122 (49)	125 (48)
Annual income			
<*\$20,000	254 (52)	109 (44)	145 (59)
Irritable bowel syndrome	27 (5)	12 (5)	15 (6)
Chronic pain*	324 (64)	156 (62)	168 (65)
Major depression*	109 (21)	46 (18)	63 (24)
Other depressive disorder*	110 (22)	45 (18)	65 (25)
Anxiety disorder <sup>†</sup>	109 (22)	44 (18)	65 (25)
Heavy drinking	48 (9)	24 (10)	24 (9)
Substance dependence <sup>‡</sup>	73 (15)	52 (21)	21 (8)

\*N=508

<sup>†</sup>Generalized anxiety and/or panic disorders (N=500)<sup>‡</sup>N=502

significantly higher among heavy drinkers or those with SD, whereas lifetime PTSD was (Table 3).

### Clinician Recognition: Medical Record Documentation

Based on EMRs of the participants in the consecutive sample, 11% of patients with CIDI-determined current PTSD had a PTSD diagnosis documented in the medical record. Of participants with current PTSD, 51% had depression noted in the medical record. Depression was noted in the EMR of 55% of those with both PTSD and depression (major and other), 43% of those with PTSD alone, 32% of those with depression but not PTSD, and 18% of those with neither PTSD nor depression ( $p < .0001$  for differences between groups).

## DISCUSSION

Among the patients attending an urban hospital-based primary care practice, PTSD is an exceptionally common diagnosis.<sup>51</sup> Almost one-quarter of patients met the criteria for current PTSD and one-third met the criteria for lifetime PTSD.

Importantly, documentation of this diagnosis was exceedingly uncommon. Only 11% of those with current PTSD were correctly identified in the medical record. In patients with certain conditions (chronic pain, IBS, depression, anxiety disorder, and SD), PTSD prevalence was two to three times as high; patients with these conditions accounted for over 90% of all cases of PTSD. While over a quarter of those with a co-occurring condition had PTSD, not having a co-occurring condition made the diagnosis of PTSD very unlikely.

Our findings are consistent with the published studies of people with PTSD reporting more physical symptoms.<sup>52–58</sup> Multiple factors may contribute to the association between PTSD and physical symptoms including organic illnesses,<sup>31,57,59–61</sup> altered physiology,<sup>62–64</sup> and psychological mechanisms.<sup>30</sup>

In this study, lifetime PTSD was present in half of patients with current heavy drinking and SD. These findings are similar to those from substance-abuse treatment settings and primary care.<sup>38,39,65</sup> Surprisingly, current SD and heavy drinking were strongly associated with lifetime PTSD but only weakly with current PTSD. One explanation may be that substance use dampens PTSD symptoms, an assertion supported by reports of PTSD patient self-medication in other studies.<sup>66–68</sup> Another explanation may be that patterns of substance use are initiated in a period of current PTSD but persist beyond its resolution.

The higher PTSD prevalence in those with a diagnosis of depression and anxiety was not unexpected based on the literature detailing the psychiatric conditions comorbid with PTSD.<sup>12,69</sup> While primary care clinicians have become relatively more comfortable with identifying and managing depression in the past 10 years, more work remains to optimize screening and treatment for other psychiatric disorders.<sup>70–73</sup> More than half of our participants with EMR documentation of depression met the diagnostic criteria for PTSD, suggesting that clinicians may have labeled psychological distress as the more familiar diagnosis of depression.

Unlike depression, for which medication alone can be effective, evidence-based care for PTSD includes psychotherapy with or without medication.<sup>74</sup> Trauma-focused psychotherapies can result in significant improvement of symptoms in more than half of patients.<sup>75</sup> Thus, treatment by primary care clinicians may require new strategies beyond psychoactive medication prescription. In particular, the close relationship between physical problems and PTSD suggests an avenue to develop new interventions, better coordinating the care of general medicine and mental-health clinicians. Such coordination of care to address mental-health conditions in the primary care setting has been encouraged by a recent Institute of Medicine report.<sup>76</sup> Based on this study's findings, clinicians should consider evaluating patients who present with more than 3 months of physical pain or IBS for PTSD and referring those with PTSD for care. In addition, effective PTSD treatment may improve pain. Extensive literature suggests that treating depressive symptoms can improve pain and disability.<sup>77–81</sup>

An unexpected finding was the lower PTSD prevalence among immigrants. The study eligibility requirement to speak English likely selected acculturated immigrants, producing a "healthy immigrant effect."<sup>82</sup> Immigrants in this study had more social support as well. Other studies suggest lower psychiatric morbidity among some immigrant groups, depending on home country, socioeconomic status and subsequent adjustment to their adopted land.<sup>83</sup> Additionally, it is likely that immigrants with PTSD would have had substantial barriers to learning English

Table 2. PTSD Prevalence Among Participants with Selected Conditions (Consecutive Sample, N=509)

Condition	N	Current PTSD				Lifetime PTSD			
		Unadjusted prevalence (%)	p value	Adjusted prevalence* (95% CI)	p value <sup>§</sup>	Unadjusted prevalence (%)	p value	Adjusted prevalence* (95% CI)	p value <sup>§</sup>
Immigrant*	Yes	140	17	13% (8–20)	0.046	24		22% (15–30)	
	No	359	25	21% (17–26)	0.06	38	0.004	36% (31–42)	0.006
Chronic pain*	Yes	319	27	23% (18–29)	0.003	40		38% (33–44)	
	No	180	14	12% (8–18)	0.0009	23	<0.0001	21% (15–28)	0.0003
Anxiety†	Yes	104	50	42% (31–53)	<0.0001	68		64% (53–74)	
	No	389	16	14% (11–18)	<0.0001	25	<0.0001	25% (21–30)	<0.0001
Major depression*	Yes	104	43	35% (25–45)	<0.0001	60		54% (44–65)	
Other depression	Yes	109	31	26% (18–36)		41	<0.0001	38% (29–48)	<0.0001
	No	286	12	11% (8–16)		22		22% (17–28)	

\*N=499

†Generalized anxiety disorder and/or panic disorder (N=493)

‡Models are adjusted for age, gender, race, income, employment, and marital status. Adjusted proportions were calculated using the mean values on background covariates.

§p values comparing adjusted proportions are based on the regression coefficients for the group variable.

fluently enough to participate in this study.<sup>84</sup> Future studies should examine both English and non-English speaking immigrants for PTSD to better understand its prevalence.

The prevalence of PTSD in these urban primary care patients was markedly higher than that found in most other studies of primary care settings, including those involving veterans, where PTSD prevalence is expected to be high.<sup>14,15,18,19,21,31,37,85</sup> Possible explanations for this population’s high PTSD prevalence are rooted in its socioeconomic profile with high exposure to trauma and low levels of social support. In a recent study of high school students in Boston, 71% witnessed violence and 44% were directly victimized in the prior year.<sup>86</sup> Social support is an important source of protection from the development of PTSD after trauma exposure,<sup>87–90</sup> and several demographic characteristics can serve as proxies for social support in this study. For example, half of our participants earned less than \$20,000 per year. Likewise, half of the participants, all of whom were of working age, were unemployed or disabled. In addition, only 27% were married or living with a partner.<sup>91,92</sup>

There were limitations to this study. As a diagnostic instrument, the CIDI PTSD module only assessed for symptoms after one trauma selected as most stressful by the participant,

whereas other diagnostic interviews assessed for symptoms after multiple traumas, offering more opportunities for PTSD diagnosis. However, the instrument used in this study is the same or very similar to those instruments used in national PTSD studies.<sup>12,13</sup> Our sample was drawn from a single hospital care system whose mission is to serve vulnerable populations and may not represent settings with a broader range of patients. However, our sample is similar to other urban medical settings serving low-income populations in demographic characteristics as well as prevalence of: depression, trauma exposure, substance-use disorders, and co-occurring chronic conditions.<sup>16,93–97</sup> Further research in primary care settings serving other populations is warranted. Lastly, the prevalence would only apply to patients aged 18–65 years old presenting for care, not to a population of all primary care patients.

Despite these limitations, the study had numerous strengths. We enrolled a large primary care sample of patients, oversampled for less prevalent comorbid conditions of interest, utilized a well-regarded structured diagnostic interview for PTSD, and analyzed data with multivariable approaches. These methodological features address some of the concerns with prior studies of PTSD prevalence in primary care.

Table 3. PTSD Prevalence Among Participants with Comorbid Conditions (Enhanced Sample, N=607)

Condition	N	Current PTSD				Lifetime PTSD			
		Unadjusted prevalence (%)	p value	Adjusted prevalence* (95% CI)	p value <sup>§</sup>	Unadjusted prevalence (%)	p value	Adjusted prevalence* (95% CI)	p value <sup>§</sup>
IBS*	Yes	47	45	34% (22–49)	0.012	53	0.007	45% (31–60)	
	No	550	21	18% (15–22)	0.0002	34		32% (28–37)	0.104
Heavy†	Yes	73	32	26% (16–38)	0.174	53	0.0005	49% (37–62)	
	No	524	21	19% (15–23)	0.05	33		31% (27–36)	0.007
Substance Dependence†	Yes	105	30	26% (18–36)	0.069	52	<0.0001	52% (41–62)	
	No	488	21	18% (14–22)	0.056	31		29% (25–34)	<0.0001

\*N=597

†N=593

‡Models are adjusted for age, gender, race, income, employment, and marital status. Adjusted proportions were calculated using the mean values on background covariates.

§p values comparing adjusted proportions are based on the regression coefficients for the group variable.

Our results underscore the need to focus on the identification and treatment of PTSD in urban primary care settings as well as to explore the relationship between PTSD and certain conditions (chronic pain, IBS, SD, heavy drinking, depression, anxiety, and immigrant status) in varied settings with lower baseline PTSD prevalence. Before recommending broad screening for PTSD, screening tools and interventions in the primary care setting need to be developed and tested. In the meantime, it is appropriate for primary care clinicians treating patients in high-risk areas, particularly those with the conditions identified in this study, to assess for PTSD and refer those identified to effective care.

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**Conflict of Interest Summary:** None disclosed.

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## APPENDIX

**Table 4. Trauma exposure of participants recruited in primary care (consecutive sample)**

Traumatic event	Total (N=509)	Male (N=251)	Female (N=258)
	N (%)		
Witness someone being badly injured or killed*	233 (46)	150 (60)	83 (32)
Seriously physically attacked or assaulted†	209 (41)	120 (48)	89 (35)
Threatened with a weapon, held captive, kidnapped*	191 (38)	127 (51)	64 (25)
Life-threatening accident*	163 (32)	98 (39)	65 (25)
Fire, flood, other natural disaster*	112 (22)	61 (24)	51 (20)
Sexually molested*	104 (20)	31 (12)	73 (28)
Raped†	80 (16)	11 (4)	69 (27)
Violent death of family/friend**	66 (13)	30 (12)	36 (14)
Violent acts to family/friend**	60 (12)	29 (12)	31 (12)
Non-violent death of family/friend**	57 (11)	31 (12)	26 (10)
Sexual violence to family/friend**	41 (8)	15 (6)	26 (10)
Tortured or victim of terrorism*	23 (5)	12 (5)	11 (4)

**Table 4. (continued)**

Traumatic event	Total (N=509)	Male (N=251)	Female (N=258)
	N (%)		
Direct combat experience in a war*	17 (3)	9 (4)	8 (3)
Health complications/illness	16 (3)	9 (4)	7 (3)
Accident (non-life-threatening)	17 (3)	11 (4)	6 (2)
Natural disaster to family/friend**	10 (2)	4 (2)	6 (2)

All traumas met the DSM-IV criterion A for PTSD: sudden, violent, or unexpected with corresponding horror, helplessness, or fear for one's life. Some included events occurring to a person close to the participant as per DSM-IV. Only trauma exposures reported by >2% participants are listed.

\*N=508

†N=507

\*\*Event occurred to person close to participant.

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