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Mental Health Service Use Among Trauma-Exposed Adults

A Mixed-Methods Study

Bitu Ghafoori, PhD, Belen Barragan, MS,* and Lawrence Palinkas, PhD†*

Abstract: Research findings indicate that many urban trauma-exposed individuals do not access needed mental health care; therefore, it is critical to identify factors associated with the use of mental health services for this group. This study used a mixed-methods approach to examine predictors of mental health service use and barriers to care. Quantitative findings showed that significantly more adults who were male and black with a lower education and income did not report current mental health service use. After controlling for covariates, individuals with lower trauma exposure (odds ratio [OR], 0.7; 95% confidence interval [CI], 0.5–0.9) and higher depression symptom scores (OR, 1.0; 95% CI, 1.0–1.1) were significantly more likely to report current mental health service use. Qualitative findings indicated that fear, low mental health literacy, helplessness, and psychosocial issues were identified as barriers to mental health treatment. Implications for treatment and future research are discussed.

Key Words: Trauma, mental health service use, urban, low-income, mixed-methods

(*J Nerv Ment Dis* 2014;202: 239–246)

Trauma exposure in the United States impacts large numbers of people and must be considered a significant public health issue (Breslau et al., 1998; Kessler et al., 1995). Numerous public health consequences of trauma exposure have been identified and include mental health difficulties such as posttraumatic stress disorder (PTSD), generalized anxiety disorder (GAD), and depression (Breslau, 2007; Breslau et al., 2003; Roberts et al., 2011) and increased functional impairment, such as unemployment, social difficulties, and family difficulties (Kubzansky et al., 2009; Mezuk et al., 2010). Urban, low-income adults have been found to have increased exposure to trauma, more psychosocial stressors, fewer coping skills, higher rates of PTSD and depression, and fewer resources (Alim et al., 2008; Breslau et al., 1998; Gillespie et al., 2009; Switzer et al., 1999); however, these populations often do not access mental health care (Gavrilovic et al., 2005; Schacht et al., 2007).

A growing body of research indicates low mental health service use relative to need among trauma survivors (Gavrilovic et al., 2005; Sayer et al., 2009; Vogt, 2011). Some research indicates that urban, low-income trauma survivors with PTSD endorse a desire for mental health services but may encounter barriers to treatment (Davis et al., 2008; Vega et al., 2001). Barriers identified include lack of time, competing demands, lack of insurance, difficulty obtaining services, and stigma (Cooper-Patrick et al., 1995; Davis et al., 2008; Hines-Martin et al., 2003; Miranda et al., 2003). However, these

barriers do not fully determine mental health-seeking behavior in trauma-exposed adults; there are critical personal, social, and cultural factors that are not studied.

The Behavioral Model of Health Service Use (Andersen, 1995) may facilitate our understanding as to “why” certain individuals use services for trauma-related mental health symptoms and provides a conceptual framework for this study. According to this model, service utilization is impacted by three categories of variables: predisposing, enabling, and need. A few studies have applied this model to the study of mental health service use for trauma-exposed individuals with PTSD, with the finding that need characteristics, such as PTSD and higher levels of psychopathology, are very important in mental health care utilization; however, predisposing factors, such as female sex, older age, white race, and higher income, may influence who actually receives treatment (Fikretoglu et al., 2006; Fontana and Rosenheck, 1995; Koenen et al., 2003; Sayer et al., 2007). Although studies on the relationship between type of trauma exposure and mental health service use have yielded inconsistent results (Jaycox et al., 2004), some evidence indicates that survivors of violent crimes and sexual assault seem to be more likely to seek mental health care (Sorenson and Siegel, 1992; Norris et al., 1990). Few studies have focused on mental health beliefs, which are defined as attitudes, values, and knowledge that people have about their mental health and mental health services that may influence their perceptions of need and use of mental health services.

Identification of factors associated with mental health service use among trauma-exposed groups is essential for informing mental health care of trauma survivors. In this mixed-methods study, the primary aim was to develop a comprehensive understanding of mental health service use in a community sample of trauma survivors. On the basis of previous empirical and theoretical work as discussed earlier, we expected that predisposing, enabling, and need characteristics such as female sex, older age, white race, and higher income; increased PTSD symptoms; and increased depression symptoms would be associated with current mental health service use. We also investigated the relationship between specific types of trauma exposure and current mental health service use. Finally, qualitative data from a subset of participants were used to describe and understand the narratives of urban, low-income, trauma-exposed adults to learn about mental health beliefs related to trauma exposure, mental health outcomes, and the use of mental health services.

METHODS

Study Design

The study’s homogeneous purposive sample was composed of adult clients seeking services at one of three health and mental health facilities in southern California. In a sequential design, quantitative methods were first used to identify sample characteristics, current use of mental health services, types of traumas, total number of traumas experienced, and mental health symptoms, whereas qualitative methods were then used to document and describe processes and beliefs related to help seeking.

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ISSN: 0022-3018/14/20203-0239
DOI: 10.1097/NMD.0000000000000108

Participants

Eligible participants were English-speaking individuals older than 18 years who had experienced, had witnessed, or were confronted with any lifetime traumatic event that involved actual or threatened death or serious injury or threat to the physical integrity of others to which the individual responded with intense fear, helplessness, or horror (*Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*; American Psychiatric Association, 2000). Exclusion criteria for this study included psychosis, suicidal or homicidal thoughts, history of suicidal attempt/psychiatric hospitalization in the year before the screening interview, or substance use in the 24 hours before the screening interview.

Data Collection

Of the 215 people who responded to study flyers and were screened for the quantitative study, 85.6% ($n = 181$) met the eligibility criteria and consented to participate. Reasons for exclusion from the study included no trauma exposure ($n = 20$), psychosis ($n = 2$), suicidal thoughts ($n = 4$), psychiatric hospitalization in the year before the screening interview ($n = 4$), and substance abuse in the 24 hours before the screening interview ($n = 4$). Among the 181 completers, 180 (99.5%) provided sufficient quantitative data on the variables of interest. Two individuals were excluded from the study because of endorsing no PTSD symptoms. A total of 178 individuals composed the analytic sample for this report. Individuals who expressed interest to participate in the second part of the study (the qualitative interviews) were contacted by telephone by a research assistant. Of the 181 completers of the quantitative study, 40 refused to participate in the qualitative study, 86 did not respond to contact attempts, 15 relocated, and 10 were ineligible because of substance use. Thirty individuals from the original sample (17%) completed 60-minute, audio-recorded, semistructured interviews. Audiotapes were transcribed, reviewed, and checked for accuracy by the first author. Three audio recordings were of poor quality and were excluded from the final analysis. Thus, a sample size of 27 individuals participated in the qualitative portion of the study. The participants received a \$10 gift card for participation in each part of this institutional review board–approved study.

Quantitative Measures

A history form included questions assessing whether the participant was currently receiving mental health treatment and the participant's age, sex, marital status, race/ethnicity, level of education, and annual household income.

The Stressful Life Events Screening Questionnaire (SLESQ; Goodman et al., 1998) is a 13-item self-report screening measure designed to assess lifetime exposure to a variety of traumatic events. The participants are asked whether they have experienced each of 11 events and 2 “catch-all” experiences. For this study, we identified both the type of trauma experienced and the number of traumas reported by the participant for the 11 events and excluded the catch-all experiences.

The PTSD Checklist–Civilian version (Weathers et al., 1993) is a 17-item self-report PTSD symptom scale (Hoge et al., 2004; Weathers et al., 1993). The respondents rated the extent to which they have been bothered by each symptom using a 5-point scale (1, not at all, to 5, extremely). Items were summed to yield a total score that serves as a measure of PTSD (Cronbach's $\alpha = 0.91$) symptom severity. In addition, following Blanchard et al. (1996), we used a cutoff score of 44 or greater to define probable PTSD (Blanchard et al., 1996).

The Brief Symptom Inventory–18 (Derogatis, 2001) is a self-report measure of psychological distress. The respondents reported

how much each symptom or problem distressed or bothered them during the past 2 weeks on a 5-point scale (0, not at all, to 4, extremely). In the current analysis, raw scores for the depression subscale were converted to T-scores using normative data from community samples (Cronbach's $\alpha = 0.93$). T-scores of 63 or greater are indicative of clinical “caseness” (Derogatis, 2001; Zabora et al., 2001).

The Generalized Anxiety Disorder–7 (GAD-7; Spitzer et al., 2006) is a 7-item measure of GAD that has good internal consistency and test-retest reliability. Response options are not at all, several days, more than half the days, and nearly every day. GAD-7 scores range from 0 to 21 and reflect anxiety severity (Cronbach's $\alpha = 0.87$); however, a diagnostic cut point of 10 or greater was used in this study to indicate probable GAD (Spitzer et al., 2006).

Qualitative Interview Procedures

Semistructured questions were developed by the research team and constituted the qualitative interview. In particular, the questions assessed knowledge, attitude, and beliefs regarding trauma, mental illness, help seeking, mental health treatment, and barriers to treatment. The content of the interview questions were informed by the sensitizing constructs of the Behavioral Model of Health Service Use (Anderson and Newman, 1973). Of the three investigators, the third author is an anthropologist with extensive experience in using mixed-methods designs in health services research. The third author provided comprehensive training in qualitative and mixed-methods research methodology to the first author, and the first author trained and supervised the second author. The first and second authors conducted all of the semistructured interviews.

Data Analysis

Sociodemographic and trauma exposure differences between those with and without current mental health service use were assessed with chi-square analysis for categorical variables. Binary logistic regression was used to understand the relationship between clinical characteristics and current mental health service use, with odds ratios (ORs) and 95% confidence intervals (CIs) reflecting the increased or decreased likelihood of mental health service use as a function of PTSD, GAD, depression, or trauma severity. To isolate the associations between clinical outcomes and mental health service use, we also conducted these regressions with covariates to reduce potential confounding.

Using a methodology of “Coding Consensus, Co-occurrence, and Comparison” outlined by Wilms et al. (1992) and rooted in grounded theory (*i.e.*, theory derived from data and then illustrated by characteristic examples of data; Glaser and Strauss, 1967), field notes and interview transcripts were analyzed. All data were read and reviewed by the first and second authors to develop a broad understanding of content as it relates to the project's specific aims and to identify topics of discussion. Material in field notes and interviews was coded to condense the data into analyzable units. Segments of text were assigned codes on the basis of emergent themes (known as open coding) or a priori themes (from the interview guide; Corbin and Strauss, 2008). Lists of codes developed by each investigator were then matched and integrated into a single codebook. Members of the research team coded all of the interviews using the codebook to establish consensus reliability. When disagreement arose, the research team attempted to identify the source of the discrepancy, and coded sections were reviewed again until consensus was reached (Braun and Clarke, 2006). Thematic analysis of the interviews was completed using QSR NVivo (Fraser, 2000) to identify categories, subcategories, and relationships between codes and categories across the interviews. The technique of constant comparison was used to further condense the categories into broad themes.

RESULTS

Mental Health Service Use and Sociodemographic Correlates

Approximately 19.1% of the whole sample ($n = 34$) reported current mental health service use, whereas 25.9% of the subsample ($n = 7$) who completed qualitative interviews reported current mental health service use. In the whole sample, those participants not receiving current mental health care significantly were male, black, and high school educated and had very low income compared with the participants who were receiving current mental health care (Table 1). Similarly, in the subsample of individuals who completed the qualitative interviews, those participants not receiving current mental health care significantly were male and black and had very low income compared with the participants who were receiving current mental health care (Table 1). In the analyses of the association between mental health outcomes and mental health service use, we adjusted for all of these significant variables.

Mental Health Service Use and Trauma Exposure

Lifetime exposure to multiple traumatic events was fairly common in this sample (Table 2). The mean number of traumas experienced by the whole sample and the subsample of individuals who completed the qualitative interviews was 4.6 (SD, 2.3). In the whole sample, even after adjusting for significant covariates, those with more traumas were significantly less likely to be receiving current mental health services (OR, 0.70; 95% CI, 0.54–0.92) compared with the participants not receiving current mental health care even after adjusting for significant covariates (Table 3). In the whole sample,

those participants not receiving current mental health care had a significantly higher percentage of exposure to physical assault/abuse, robbery/mugging, threat with a weapon, or life-threatening accident compared with the participants who were receiving current mental health care (Table 2). Those participants receiving current mental health care had a significantly higher percentage of attempted sexual assault (48.1%) compared with the participants who were not receiving mental health care (28.8%; Table 2).

Mental Health Need and Mental Health Service Use

Approximately 47.2% of the whole sample ($n = 84$) met the criteria for screen-positive PTSD, 46.6% ($n = 83$) met the criteria for screen-positive GAD, and 42.1% ($n = 75$) met the criteria for screen-positive depression. The whole sample and the subsample of individuals who completed qualitative interviews had similar PTSD and depression symptom severity scores (Table 3); however, the subsample had a slightly lower mean GAD symptom severity score. Bivariate logistic regression analyses predicting current mental health service use indicated that only increased depression symptom severity significantly predicted current mental health service use (Table 3). PTSD and GAD symptom severity were not significantly associated with mental health service use. After adjusting for significant covariates, the participants with increased depression symptom severity continued to be more likely to be using mental health services (OR, 1.05; 95% CI, 1.00–1.09, $p < 0.05$).

Beliefs and Perspectives From Qualitative Findings

Perceptions of continued mental health problems as a result of trauma exposure were common among those interviewed. Taking

TABLE 1. Background Characteristics by Mental Health Service Use

Demographic Characteristics	Whole Sample ($n = 178$) % (n)	Current Mental Health Service Use, Whole Sample		Test	Current Mental Health Service Use, Qualitative Subsample ($n = 27$)		χ^2 Test
		No ($n = 144$) % (n)	Yes ($n = 34$) % (n)		No ($n = 20$) % (n)	Yes ($n = 7$) % (n)	
Age range, yrs							
18–44	49.4 (88)	45.8 (66)	64.7 (22)	$\chi^2_2 = 4.0$	45.0 (9)	57.1 (4)	$\chi^2_2 = 2.2$
45–54	32.0 (57)	34.0 (49)	23.5 (8)		30.0 (6)	42.9 (3)	
≥55	18.5 (33)	20.1 (29)	11.8 (4)		25.0 (5)	0 (0)	
Sex							
Female	33.7 (60)	23.6 (34)	76.5 (26)	$\chi^2_1 = 34.4^{***}$	30.0 (6)	71.4 (5)	$\chi^2_1 = 3.7^*$
Male	66.3 (118)	76.4 (110)	23.5 (8)		70.0 (14)	28.6 (2)	
Marital status							
Married/cohabitating	12.9 (23)	11.8 (17)	17.6 (6)	$\chi^2_1 = 0.8$	15.0 (3)	14.3 (1)	$\chi^2_1 = 0.0$
Other	87.1 (155)	88.2 (127)	82.4 (28)		85.0 (17)	85.7 (6)	
Race/ethnicity							
Black (non-Hispanic)	45.5 (81)	52.8 (76)	14.7 (5)	$\chi^2_2 = 16.1^{***}$	50.0 (10)	0 (0)	$\chi^2_2 = 9.1^*$
White/other	34.8 (62)	29.9 (43)	55.9 (19)		15.0 (3)	71.4 (5)	
Hispanic	19.7 (35)	17.4 (25)	29.4 (10)		35.0 (7)	28.6 (2)	
Level of education							
No high school diploma	26.4 (47)	31.2 (45)	5.9 (2)	$\chi^2_2 = 29.2^{***}$	20.0 (4)	0 (0)	$\chi^2_2 = 5.4$
At least a high school diploma	45.5 (81)	49.3 (71)	29.4 (10)		65.0 (13)	42.9 (3)	
College degree	28.1 (50)	19.4 (28)	64.7 (22)		15.0 (3)	57.1 (4)	
Household income, annual							
<\$14,999	77.5 (138)	86.1 (124)	41.2 (14)	$\chi^2_1 = 31.9^{***}$	90.0 (18)	42.9 (3)	$\chi^2_1 = 6.7^*$
≥\$15,000	22.5 (40)	13.9 (20)	58.8 (20)		10.0 (2)	57.1 (4)	

* $p < 0.05$.
*** $p < 0.001$.

TABLE 2. Trauma Exposure Characteristics by Mental Health Service Use

	Current Mental Health Service Use, Whole Sample				
	Qualitative Subsample (n = 27 ^a)	Whole Sample (n = 178 ^a)	No (n = 144 ^a)	Yes (n = 34 ^a)	
Traumatic Event		% (n)	% (n)	% (n)	χ ² Test
Assaultive trauma					
Physical assault/abuse	51.9 (14)	44.4 (79)	50.0 (72)	25.0 (7)	χ ² ₁ = 5.9*
Robbery/mugging	40.7 (11)	41.6 (74)	47.9 (69)	19.2 (5)	χ ² ₁ = 7.4**
Attempted sexual assault	18.5 (5)	30.3 (54)	28.8 (41)	48.1 (13)	χ ² ₁ = 4.1*
Sexual assault/penetration	29.6 (8)	29.2 (52)	28.5 (41)	39.3 (11)	χ ² ₁ = 1.3
Threatened with weapon	28.6 (8)	43.3 (77)	49.7 (71)	23.1 (6)	χ ² ₁ = 6.3*
Childhood physical assault	51.9 (14)	51.1 (91)	52.8 (76)	50.0 (15)	χ ² ₁ = 0.1
Domestic violence	48.1 (13)	41.6 (74)	43.1 (62)	42.9 (12)	χ ² ₁ = 0.0
Witnessed death/assault	44.4 (12)	51.7 (92)	58.0 (83)	34.6 (9)	χ ² ₁ = 4.9*
Nonassaultive trauma					
Life-threatening illness	33.3 (9)	30.3 (54)	33.3 (48)	23.1 (6)	χ ² ₁ = 1.1
Life-threatening accident	51.9 (14)	45.5 (81)	51.4 (74)	26.9 (7)	χ ² ₁ = 5.3*
Death of a loved one by accident, homicide, or suicide	59.3 (16)	50.6 (90)	54.2 (78)	42.9 (12)	χ ² ₁ = 1.2

^aFor some characteristics, N/n is less because of missing data.

* $p < 0.05$.

** $p < 0.01$.

the sample as a whole, during interviews, 13 individuals expressed feeling “normal,” whereas 14 individuals expressed clear emotional pain, particularly symptoms of avoidance, irritability, sadness, and anxiety, when describing their ongoing reactions related to trauma. Of the 14 individuals reporting emotional pain, half reported that they do not know why they continue to have symptoms, whereas the other half described feelings of hopelessness related the trauma symptoms they continue to experience. These reports were in contrast to actual diagnoses the participants reported receiving from mental health providers; only 3 individuals reported receiving a depression diagnosis from a mental health practitioner, 2 reported a PTSD diagnosis, 1 reported an adjustment disorder diagnosis, and 16 reported never being given a mental health diagnosis.

Fear ($n = 13$) about the potential effects of medication or talking to someone and lack of knowledge ($n = 8$) about how treatment may be beneficial were reasons why some people reported that they did not seek assistance with trauma-related symptoms. One person stated, “Other than medication I don’t know too much ... my fear associated with medication is that it’s going to make it worse. That’s what I’ve always heard. I’m just scared of the effect it’ll have on me.”

Some individuals stated that they would seek mental health treatment of traumatic stress if it was available and explained to them

($n = 8$), and only a few people stated that they would not seek mental health treatment because of lack of time ($n = 2$), lack of money ($n = 1$), or lack of insurance ($n = 1$). Most people ($n = 16$) did not understand how speaking about the trauma to someone would help them. One participant stated, “I never put a whole lot of thought into talking to someone, but it’s almost like a release valve. For example, like from the moment I walked into this room to now, I feel better. And it’s weird because I never even thought to myself that I might feel better. Now, like right this second that I’m thinking about it, I do feel better. Anyways, anybody that goes through mental trauma, I think they should see a counselor, because now, firsthand, I see that it does benefit.”

A theme that emerged was that most individuals interviewed did not know anything about trauma treatment ($n = 21$). No one interviewed had received a trauma-focused psychotherapeutic treatment such as exposure therapy, eye movement desensitization and reprocessing, or cognitive reprocessing. When asked about any mental health treatment of the trauma-related symptoms, slightly more than half of the individuals interviewed reported obtaining mental health services for distressing symptoms at some point in their lives ($n = 16$), and types of assistance received included primarily medication ($n = 8$) followed by limited supportive therapy ($n = 6$).

TABLE 3. Association Between Mental Health Outcomes and Mental Health Service Use

Clinical Outcome	Current Mental Health Service Use, Whole Sample				OR (95% CI)	
	Qualitative Subsample	Whole Sample	No (n = 144)	Yes (n = 34)	Crude OR	Adjusted OR ^a
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)		
PTSD symptom severity	44.4 (17.2)	43.4 (14.7)	42.3 (14.4)	47.7 (15.3)	1.03 (1.00–1.05)	1.01 (0.98–1.05)
Depression symptom severity	61.7 (12.9)	59.4 (11.9)	58.5 (11.0)	62.9 (14.8)	1.04 (1.00–1.07)*	1.05 (1.00–1.09)*
GAD symptom severity	7.7 (6.1)	9.4 (5.7)	9.2 (5.5)	10.2 (6.5)	1.03 (0.96–1.10)	1.04 (0.95–1.13)
No. traumas	4.6 (2.3)	4.6 (2.3)	5.0 (2.2)	3.1 (2.1)	0.66 (0.54–0.81)***	0.70 (0.54–0.92)*

^aAdjusted for significant demographic characteristics (sex, race/ethnicity, education, and household income).

* $p < 0.05$.

*** $p < 0.001$.

Only seven of the individuals interviewed were currently receiving some form of mental health treatment of trauma-related distress; however, none of these individuals stated that they were receiving a trauma-focused treatment. Most participants stated that they were interested in receiving counseling/psychotherapy for traumatic stress symptoms ($n = 18$).

Other themes that emerged were helplessness about ongoing symptoms, even among those individuals who considered themselves and their lives normal, as well as psychosocial difficulties. Psychosocial issues consisted primarily of lack of employment/financial issues and relationship issues. For example, one person who experienced sexual abuse and considered his life normal stated that although he continued to avoid reminders of the event, he no longer “pulls over to the side of the road and starts weeping.” He stated, “It is what it is. I can’t undo it or put all of this in reverse. I just deal with it. It was only one time. I can’t fix it.” This participant reported difficulty making and keeping friends, difficulty in romantic relationships, and difficulty keeping employment. He reported that he feared that getting treatment might cause more problems because he may have to think about the trauma again. As described by another participant who was a survivor of community violence and had continued symptoms, “From the beginning, I didn’t deserve it. Number two, there is a great deal of helplessness that you feel in that situation because my spirit, I wanted to strike back but I couldn’t ... I physically couldn’t. Then, I was in the hospital. I couldn’t think straight, I couldn’t talk right, and I literally couldn’t even walk straight. There was helplessness involved that also leads to depression.” This participant also reported psychosocial difficulties such as unemployment and problems in romantic relationships.

Most people interviewed indicated that they were not concerned about potential stigma associated with a mental health diagnosis or receiving mental health treatment ($n = 21$). One person stated, “I think it’s too late for that now. I would have worried [about what people thought] a long time ago but not anymore. A lot of people go to counseling for a variety of reasons.”

DISCUSSION

The current study used multiple methods to examine the experiences of trauma-exposed adults with mental health service use. Consistent with other studies, this study revealed that urban, low-income, trauma-exposed adults had relatively high levels of trauma exposure as well as PTSD, GAD, and depression symptoms but reported relatively low rates of mental health service use (Breslau et al., 1998; Davis et al., 2008; Gillespie et al., 2009; Jaycox et al., 2004). Our finding that only 19.1% of our whole sample and 25.9% of our subsample reported current mental health service use adds to the growing literature indicating that relatively few individuals seek mental health care after trauma exposure (Davis et al., 2008; Gavrilovic et al., 2005; Jaycox et al., 2004; Norris et al., 1990). The combination of quantitative and qualitative findings from this study may add to an understanding of possible reasons for low rates of service use relative to need.

Some of our quantitative findings are consistent with the Behavioral Model of Service Use (Anderson and Newman, 1973) and existing research, whereas others were not. For example, consistent with past research on predisposing and enabling factors and mental health service utilization, our results suggest that those individuals not receiving mental health care disproportionately were male and black with a lower education and lower income level compared with the other study participants (Boscarino et al., 2005; Gavrilovic et al., 2005; Jaycox et al., 2004; Koenen et al., 2003). Our results also suggest that accumulated trauma and exposure to most trauma types are not associated with service use. Our findings are consistent with one other study (Solomon et al., 1989) that showed that fewer

negative life events were associated with treatment seeking. Past studies have shown that urban living is associated with increased exposure to violence and other traumas, including an increased risk for accumulated trauma, and these experiences disproportionately affect economically disadvantaged and minority residents (Breslau et al., 1998; Gillespie et al., 2009; Parrish et al., 2011). Future research should examine the potential mechanisms by which more stressors, including more traumatic events, may contribute to lower treatment seeking.

The finding that only sexual assault was associated with service use, whereas several other forms of interpersonal violence were associated with lack of service use, may be consistent with past studies examining sex differences in trauma exposure and treatment seeking. For example, a recent meta-analytic review (Tolin and Foa, 2008) found that women are more likely than men to experience violent traumas, particularly sexual assault, interpersonal violence, and child sexual abuse. Men, on the other hand, may be more likely to experience trauma in the form of nonsexual assaults, witnessing death or injury, and combat or war (Tolin and Foa, 2008). Considering evidence suggesting that female trauma survivors are more likely than male survivors to use mental health services (Elhai et al., 2006; Fikretoglu et al., 2006), it is possible that sex may serve as a moderator in the relationship between trauma type and mental health service use. Future research should investigate the relationship between trauma type, sex, and service use.

Past studies suggest that the need factor most consistently associated with mental health service use in trauma-exposed groups is the level of psychological symptoms, particularly PTSD (Gavrilovic et al., 2005). Although we did not find a significant association between PTSD symptoms and service use, we did find that increased symptoms of depression were associated with service use. It may be possible that trauma exposure in combination with other poverty-related stressors may be associated with more depression symptoms, which may, in turn, impact treatment seeking (Parrish et al., 2011; Rayburn et al., 2005). Poverty has been found to be associated with factors such as the health of the environment, and individuals who live in urban, poor, “stressed” neighborhoods, characterized by residential mobility, crowded conditions, dilapidated housing, drug sales, and numerous safety issues, have been found to have more depression compared with individuals residing in less stressed neighborhoods (Matheson et al., 2006). Future research should assess how factors associated with poverty may mediate or moderate the relationship between psychiatric issues and treatment seeking.

The qualitative findings provided some important new information regarding reasons for why treatment has not been sought. Analysis of interview transcripts revealed several themes related to mental health service use: fear related to mental health treatment, lack of knowledge about treatment, helplessness related to ongoing symptoms, and psychosocial issues. These themes seem to be related to lack of receiving a mental health diagnosis for ongoing and/or disruptive symptoms as well as lack of seeking and receiving mental health care.

Most participants in this study did not access standard-of-care treatments of their trauma-related psychiatric issues, which include psychotherapy/counseling or medication. In our interviews, we found that despite interest in treatment, fear and lack of knowledge of treatment options inhibited help seeking. Only a few studies to date have identified fear of treatment (Jorm et al., 1997) and lack of knowledge (Proctor et al., 2008) as barriers to help seeking in trauma survivors. The term *mental health literacy*, coined by Jorm et al. (Angermeyer and Dietrich, 2006), is defined as the “knowledge and beliefs about mental illness that aid their recognition, management, or prevention,” and low mental health literacy has been found to be associated with decreased help seeking (Wright et al., 2007) in the broad mental health literature. It is possible that low mental health

literacy may contribute to fear and lack of awareness of treatment options in this sample of low-income trauma survivors.

Consistent with past research, feelings of helplessness regarding ongoing symptoms and psychosocial issues also emerged as barriers to mental health service use (Davis et al., 2008; Proctor et al., 2008). Studies on helplessness, also known as perceived control, and healthcare utilization have found some empirical support for a relationship between perceived control and use of health services (e.g., Brown and Granick, 1983; Krause, 1988). In addition, psychosocial problems, particularly unemployment/financial stress, are prominent among low-income adults (Owens et al., 2009; Silverstein et al., 2008). It is noteworthy to mention that our study participants often reported helplessness and psychosocial problems together. There is likely a complex interaction between socioeconomic status, feelings of helplessness, psychosocial difficulties, and service use, and future research should further investigate these relationships.

Past research has indicated that low-income ethnic and racial minority adults, particularly black and Hispanic individuals, have been found to be less likely to access specialty mental health care compared with whites (Alegria et al., 2002; Dobalian and Rivers, 2008). These troubling disparities in mental health service use have been linked to poverty; however, some research indicates that even blacks above the poverty line have less access to needed care compared with their white counterparts (Blendon et al., 1989; Dobalian and Rivers, 2008). Moreover, some research indicates that blacks, particularly poor blacks, are more likely than whites to indicate that they received inadequate, inefficient, or insensitive care (Blendon et al., 1989; Trivedi and Ayanian, 2006). Compared with their white counterparts, urban blacks seeking care have been found to be more likely to report that they were treated discourteously; were not treated as active participants in their care, contributing to poor communication; and were treated with prejudice or discrimination (Jackson, 1981; Shi and Starfield, 2001; Trivedi and Ayanian, 2006). In the wider mental health literature, sociocultural and psychosocial factors such as racism or the perception of racism, self-esteem, and helplessness have been found to serve as deterrents to health-seeking behaviors among blacks (Hewins-Maroney et al., 2005; Watson, 2001). Considering the fact that perceived racism or discrimination was not directly assessed in this study, it remains unclear whether racism or actual or perceived adverse experiences within the health care system may have contributed to helplessness, skepticism, or low mental health literacy among the trauma-exposed individuals in this study.

In contrast to other studies, the individuals who participated in the semistructured interviews did not report cost, lack of time, or public stigma associated with counseling as barriers to accessing or engaging in treatment (Boscarino et al., 2005; Koenen et al., 2003; Meredith et al., 2009). Stigma, as reflected in the extent to which an individual believes that he/she will be stigmatized by others for having a mental health problem or receiving services for one, has been implicated as a key barrier to the use of mental health treatment in the National Comorbidity Survey and a recent review of barriers to service use in the military (Vogt, 2011). Moreover, some research indicates that reduced use of mental health services by low-income black men may be associated with greater associated stigmatization within the black culture (El-Khoury et al., 2004). In this study, we inquired about both concerns about being stigmatized by others and one's own discomfort with help seeking for trauma-related mental health difficulties, and the participants denied stigma-associated beliefs as a barrier to treatment. Future research is necessary to understand the role of stigma in low-income samples of trauma survivors.

Despite this study's contribution to the mental health services literature, it has several limitations. First, psychiatric issues were assessed retrospectively by self-report screening instruments rather than a clinical interview; therefore, the external validity of our results

may be limited. The participants may not represent the broader population of urban, low-income trauma survivors, which limits the generalizability of the results. The exclusion criteria for this study also limit the external validity of the results. The individuals in this study were seeking either medical or mental health services, which may influence the higher levels of PTSD, GAD, and depression found in this study. We did not assess for racism, discrimination, or adverse experiences in the health care system, and these experiences may have influenced perceived helplessness reported by our study participants. In the qualitative portion of this study, both collection and interpretation of the data were susceptible to subjective bias and preconceived ideas by the investigators.

CONCLUSIONS

The low levels of mental health literacy and high levels of psychosocial problems in the present study may contribute to a lack of awareness of mental health treatment options for urban, low-income trauma survivors. Engaging low-income trauma survivors in mental health treatment may be complicated by a lack of ability to identify trauma-related mental health difficulties, particularly when dealing with a depressed mood, a sense of helplessness, and other competing psychosocial problems. Our findings possibly suggest that brief psychoeducational counseling that focuses on increasing knowledge about common reactions to trauma and what to expect from trauma treatment may be beneficial for some trauma survivors.

ACKNOWLEDGMENTS

The authors thank Dennis Fisher, Kristin Powers, Alina Sgattoni, Lawrence Alexander III, Chelsea Edgecumbe, Mehra Gharibian, and Madelyn Steen for their assistance.

DISCLOSURES

Support was provided by NIH grant 1P20MD003942-01.
The authors declare no conflict of interest.

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