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Making Sense of Posttraumatic Stress Disorder: Illness Perceptions Among Traumatic Injury Survivors

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Abstract

More than 1.5 million persons in the United States sustain traumatic physical injuries each year. A significant proportion of traumatic injury survivors develop serious mental health problems such as posttraumatic stress disorder (PTSD), yet few obtain professional mental health care. According to the commonsense model of self-regulation (Leventhal, Diefenbach, & Leventhal, 1992), illness-related perceptions can influence coping responses including the use of professional treatment. Using the commonsense model as a guiding framework, we conducted semi-structured interviews with non-treatment seeking trauma injury survivors with PTSD ($N = 23$). Illness perceptions regarding the following key conceptual dimensions were examined: PTSD symptoms (*identity*), experienced or perceived *consequences* of PTSD symptoms, and beliefs about the *causes*, *controllability*, and *course* of PTSD symptoms. Results revealed that no respondents identified their symptoms as indicative of PTSD. Common illness perceptions included believing that symptoms would be short-lived, that symptoms were reflective of poor physical health or were a natural reaction to life in a violent community, and that symptoms were functionally adaptive. Respondents also reported exerting some limited control over symptoms by relying on religious forms of coping. None of the respondents perceived professional treatment as being able to completely control symptoms. Findings indicated that respondents' conceptualizations of PTSD symptoms may have inhibited the recognition of symptoms as a serious mental health condition that warrants professional treatment.

In the United States, more than 1.5 million persons annually sustain traumatic physical injuries requiring hospitalization (Morbidity Mortality Weekly Report, 2002). Although estimates vary, a sizeable proportion of these individuals are at risk of developing posttraumatic stress disorder (PTSD) (O'Donnell, Creamer, Bryant, Schnyder, & Shalev, 2003; Zatzick et al., 2007). PTSD is a psychiatric condition characterized by symptoms of *reexperiencing* the traumatic event (e.g., nightmares, flashbacks), *hyperarousal* (e.g., irritability, feeling "on guard"), *avoidance* (e.g., avoiding activities, people, or places associated with the trauma), and *numbing* (e.g., feeling detached from others) (American Psychiatric Association, 1994). PTSD exacts an enormous individual and societal toll. The disorder is associated with significant impairment in quality of life and functional status (Kessler, 2000). Yearly losses in U.S. work productivity attributable to PTSD have been estimated at 3 billion dollars (Kessler, 2000).

Despite the availability of effective treatments for PTSD (Ursano et al., 2004), few survivors of physical injury receive mental health services (Jaycox, Marshall, & Schell, 2004; Zatzick,

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2003). A prospective longitudinal study of trauma injury survivors revealed, for example, that over one third perceived a need for treatment but did not seek help (Jaycox et al., 2004; Zatzick, 2003). Similarly, Jaycox et al. (2004) found that fewer than 25% of physical trauma survivors who met screening criteria for PTSD sought mental health services in the year following injury.

Preliminary evidence suggests that illness-related perceptions or beliefs about symptoms may influence mental health service use by trauma injury survivors (Jaycox et al., 2004; Wong et al., 2007). For example, in one study of physically-injured survivors of community violence, one quarter of the sample reported perceiving no emotional or adjustment problems related to their injury, even though they had met symptom criteria for probable PTSD (Jaycox et al., 2004). The National Comorbidity Study, a face-to-face household survey with a U.S. nationally representative sample, revealed similar results. Specifically, 66% of respondents who met diagnostic criteria for PTSD reported that they had not sought help because they did not perceive themselves to have a problem (Kessler, 2000). These findings raise questions regarding how individuals with significant psychological symptoms do not perceive themselves as having a problem that warrants professional help.

Further, even when physical injury survivors *do* perceive a need for mental health treatment, illness-related perceptions may still impede service seeking. Among a sample of trauma center injury patients, for example, one third reported a need for mental health care while still expressing barriers that were related to perceptions of their illness (Zatzick, 2003). For example, of those acknowledging a need for care, 66% reported thinking that their problem was not serious enough and 74% expressed wanting to solve problems on their own as reasons for not seeking treatment. Similarly, in a recent study of survivors of violence-related facial injuries, a majority of participants expressed an interest in receiving treatment for emotional problems related to the injury. Yet, they also reported experiencing a variety of barriers including a belief that it is important to deal with problems by oneself and that such problems cannot be helped (Wong et al., 2007).

Altogether, findings suggest that beliefs about the psychological sequelae of traumatic physical injuries may influence the decision to seek treatment for PTSD symptoms. Many studies have examined how perceptions of physical illness symptoms affect health behavior (Leventhal, Leventhal, & Cameron, 2001). Moreover, a small body of research has assessed the ways in which conceptions of mental health symptoms influence coping responses including help seeking and adherence to treatment (Hagger & Orbell, 2003). Research on perceptions of PTSD symptoms and help seeking have, however, been primarily confined to structured survey studies in which individuals endorse various types of perceived barriers to treatment (Jaycox et al., 2004; Wong et al., 2007). Although these studies shed some light on how perceptions of PTSD symptoms may influence treatment seeking, they provide only a limited view on the role of illness perceptions and the help seeking process.

According to the commonsense model of self-regulation (Leventhal, Diefenbach, & Leventhal, 1992), perceptions or beliefs about symptoms can vary along five key dimensions that influence how individuals respond to illness including whether to seek professional treatment. The commonsense model posits that perceptions involving the *identity*, *timeline*, *causes*, *consequences*, and *controllability* of symptoms can significantly impact coping responses. *Identity* perceptions relate to how an individual defines, labels, or interprets illness experiences. For example, an individual experiencing heart palpitations may engage in different coping responses depending on whether the symptoms are interpreted and identified as heartburn versus heart attack. *Timeline* perceptions include conceptions related to the duration or course of the illness, the point in time in which treatment is warranted, and the time required to control or cure symptoms. Thus, an illness

(e.g., cold) that is perceived to be short-lived (e.g., few days) and readily controlled by over the counter medications (e.g., within a few hours) may not prompt an individual to seek professional treatment. Perceived *causes* of an illness include beliefs about the source or origin of the illness or symptoms. Perceptions of the *consequences* of an illness refer to anticipated or actual physical, emotional, economic, or social repercussions resulting from an ailment. *Controllability* perceptions include beliefs about whether professional or self-help treatments can control or cure an illness.

Examining illness perceptions along the key dimensions outlined by the commonsense model may provide a more in-depth understanding of the processes involved when trauma physical injury survivors who suffer from significant psychological distress such as PTSD do not seek mental health care. The purpose of the present study was to conduct an exploratory, qualitative examination of illness-related perceptions among a sample of non-treatment seeking traumatic injury survivors who met criteria for probable PTSD. Using the commonsense model as a guiding framework, we conducted semi-structured interviews with trauma injury survivors with PTSD to explore conceptualizations of PTSD symptoms (*identity*), experienced or perceived *consequences* of PTSD symptoms, and beliefs about the *causes*, *controllability*, and *course* of PTSD symptoms.

Method

Participants

Participants were selected from individuals who had taken part in a precursor study of predictors of psychological adjustment following hospitalization for a traumatic physical injury. All participants in the precursor study had completed face-to-face interviews in the days immediately following their injury, at 6-month follow-up and 12-month follow-up (Wong et al., 2009). As part of these interviews, participants were administered the Posttraumatic Stress Disorder Checklist-Specific (PCL-S) (Weathers, Litz, Herman, Huska, & Keane, 1993) which asks about problems in relation to an identified “stressful experience.” PCL items were referenced specifically to the traumatic physical injury. The PCL is a 17-item self-report instrument that is keyed to the PTSD diagnostic criteria B, C, and D as defined by the Diagnostic Statistical Manual of Mental Disorders Symptoms, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994). Using DSM-IV categorical scoring procedures (i.e., at least one Criterion B, three Criterion C, and two Criterion D symptoms endorsed at a moderate score of 3 or higher) to establish probable PTSD have demonstrated high levels of specificity ranging from .95 to .97. (Ruggiero, Ben, Scotti, & Rabalais, 2003; Weathers et al., 1993; Widows, Jacobsen, & Fields, 2000). Participants with probable PTSD, at either the 6-month or 12-month interview using the aforementioned criteria, were eligible to take part in the current study.

Participants who met screening criteria for probable PTSD (Weathers et al., 1993), at either the 6-month or 12-month interview, were eligible to take part in the current study. Of a total of 100 individuals who were eligible to participate in the present study, 45 persons had contact information that was currently operational. Of these, 36 persons completed interviews, and 6 individuals declined to participate. The remainder could not be contacted for various reasons including having moved outside of the study area, incarceration, and death. Three of the completed interviews were subsequently excluded from the analyses due to audio problems. No significant differences in PTSD symptom severity were found between individuals who participated in the study ($M = 47.53$, $SD = 18.28$) and individuals who did not ($M = 45.55$, $SD = 14.05$) [$t(1, 98) = -0.61$, $p = .55$].

To better understand how illness perceptions may act as barriers for those with a need for mental health services, the present study focused on 23 individuals who reported, during a

screening interview, that they had not received mental health services at any time in the prior 12 months. Of the final sample of 23, 61% were Latino and 39% non-Latino (5 were Black, 3 White, and 1 Asian). Seventy-eight percent were male and 22% were interviewed in Spanish. Participants had a mean age of 35.22 ($SD = 13.0$). Twenty-two percent sustained injuries due to interpersonal violence, 74% were involved in motor vehicle crashes, and 4% were injured in falls. All participants provided informed consent and all study procedures were approved and monitored by the Institutional Review Boards of the RAND Corporation and the University of Southern California Medical Center.

Procedures

Face-to-face, semi-structured interviews were conducted between June and November of 2006. Participants were interviewed in their homes or at other locations in the community at the request of participants (e.g., restaurants). Interviews averaged approximately 60 minutes (with a range of 30 – 120 minutes), and were conducted in English or Spanish depending on the preference of participants. All interviews were audio-recorded and transcribed by a transcription service. English transcriptions were reviewed by project team members to identify and correct any errors. Spanish interview transcripts were translated by a translation service and reviewed for errors by a bilingual interviewer.

Interview

To assess illness perceptions, we developed a semi-structured interview to explore respondents' conceptualizations of their PTSD symptoms both broadly and according to the specific domains of the commonsense model (see Table 1). Semi-structured interviews allowed us to meet this goal by giving respondents enough freedom to direct the content of the interviews while guiding them to discuss the same topics. We followed standard procedures for developing a semi-structured interview (H.R. Bernard & Ryan, 2010). Respondents were first asked to free list problems related to their injury to gauge which issues were most salient without limiting the discussion to mental health issues (Weller & Romney, 1988). Following this general discussion about injury-related problems, domains of the commonsense model were examined using a series of broad questions (i.e., “grand tour” questions) and more specific questions and probes (i.e., “mini-tour” questions) that allowed for exploration and comparison (H. R. Bernard, 2002; Spradley, 1979) (see Table 1 for sample questions).

Analysis

We conducted a team-based analysis using a modification of grounded theory (Guest & MacQueen, 2007) (see Table 2). All interviews were first entered into an Atlas.ti database for analysis. Transcripts were then coded so that each text unit (sentences, paragraph, multiple paragraphs, etc.) was tagged for its relationship with the interview protocol, which allowed for the structure of the interview to be indexed throughout the interview texts. Tagged text segments (i.e., quotations) were then analyzed in a group analysis process by project team members. Team members conducted thematic identification in analysis meetings. In this process, all of the quotes for selected codes were divided among the meeting participants and each participant sorted quotes into piles based on patterns that emerged from reading each quote (Lincoln & Guba, 1985; G. W. Ryan & Bernard, 2003). After quotes were sorted, the team discussed the themes that emerged and noted, in particular, where illness descriptions fit standard classifications of illness experiences (e.g., DSM-IV symptoms) and themes that went beyond classic categorizations. Based on these discussions, the thematic codes that were identified were added to a detailed codebook and applied to the text. Team researchers continually reviewed coding to ensure that selected quotes accurately mapped onto the conceptual frameworks. Among the codes developed during this process were those that represented aspects of the commonsense model: identity,

timeline, causes, consequences, and controllability. Intra-coder reliability of these codes was assessed by selecting a sample of 25 quotes from each of these major themes (125 quotes total), having two coders independently code each quote for each of the five themes, and calculating a Kappa statistic for each domain (J. Cohen, 1968). All Kappa statistics approached or exceeded .70 – an acceptable level by most standards (Brennan, 1992) (see Table 2).

An additional within-case analysis was conducted by two research team members who read through each transcript and noted any discussions of the commonsense model themes. Discussions of aspects of the model were compared within each case and the two analysts wrote a detailed summary of patterns that emerged within the interviews noting patterns of consistency and inconsistency. After these summaries were completed, these two researchers compared the summaries for each dimension of the commonsense model to a comprehensive list of quotations for each commonsense model code. Descriptions of patterns that emerged were written by noting the core features of the themes and the typical examples of the abstract concepts – equivalent to finding the central tendency in quantitative analysis (G.W. Ryan, 1999) – as well as identifying exceptions to these tendencies, and quotes that exemplified both commonalities and exceptions.

Results

Identity

As part of examining respondents' *identity* perceptions of their symptoms, respondents were asked to describe experiences or difficulties occurring after their injury. Respondents were then asked if they were knowledgeable of the term "posttraumatic stress disorder" and whether they could provide a description of the condition. Although respondents were able to describe symptoms consistent with PTSD (i.e., reexperiencing, hyperarousal, avoidance, and numbing), many expressed difficulty understanding and interpreting their symptoms. With respect to reexperiencing symptoms, one respondent stated, "I can't even go to sleep at night because (the event) just keeps replaying in my head. And it just does that on its own. I don't even know how that happens." For avoidance symptoms, a respondent who survived a motor vehicle injury stated, "After the accident, I'm afraid of going out a lot. Or crossing the street, at least now I don't cross the street on the same spot if I have to go out or something." For numbing symptoms, one respondent relayed, "I want to reconnect with a lot of people... but it's just how I am right now that's really hard. I want to, but it's just hard feelings-wise. I don't know, it's just hard." In terms of hyperarousal, one respondent disclosed, "I'm very argumentative. It's just little things just irritate me. I don't understand it." Another respondent relayed, "I don't know but sometimes I'm like really easily agitated for no reason. Ever since that but I never knew why."

None of the respondents used the term PTSD to identify and label their symptoms. Some respondents used the labels "depression," "rage," or "abuse" to describe their experiences. When prompted about whether they had heard of PTSD, only two respondents expressed confidence in their knowledge of PTSD. The remaining respondents used either other professional terms or their own lay terminology to describe PTSD symptoms. For example, some connected PTSD to other conditions such as depression, postpartum depression, or stress from relationships.

Causes

The most commonly cited causes of symptoms were the traumatic event, physical pain and impairment stemming from the injury, and environmental factors. When asked to explain the source of their symptoms, some respondents stated that they were caused by the traumatic

event. A man who was hit by a drunk driver described, for example, how all of his symptoms resulted from his accident: "...everything ...was derived from the same cause, everything is around the accident...and that is where it all started. I think it is all related." Several respondents described their symptoms as constituting a normal response to experiencing a traumatic event (even though the symptoms had continued for months): "I think someone who goes through what I went through would probably feel the same the way I feel."

Many respondents attributed the cause of their symptoms to the physical pain and impairment resulting from their injuries. One respondent described the relationship between his physical pain and emotional symptoms:

"When I'm not able to use my arm properly or my leg properly, then I think about the night that I took off on my bike and I got hit at the corner. And then I think about how close I live to where it was all at and...The mental symptoms? I mean, I guess it'd be the injuries are what's causing it, because when I think about the pain I went through that night and stuff... I mean, because I never lost consciousness, so...so that right there, I mean... I'm almost in 24-hour pain. You know, I have pain....And then sometimes when I move in my bed or something, I can feel it and.....I get upset and that triggers everything, you know? ... Living in pain is the main thing for the mental problem."

Respondents also attributed their psychological symptoms to environmental factors. A respondent who was having problems with increased anxiety believed that the neighborhood where he lived contributed to his symptoms. He felt that his life was in danger on a daily basis due to the many gangs in his neighborhood. Many respondents also discussed experiences with community violence previous to their traumatic injury including assaults and times they were threatened with weapons. One respondent described being pistol whipped prior to his most recent traumatic injury and considered this incident the reason for experiencing particularly intense symptoms in response to the current qualifying trauma. He described how this previous experience contributed toward his feeling of numbness: "I've been hit in the head pretty hard, not only once, but twice-pistol whipped, you know, that creates.. It numbed some feeling, so what it does is it makes you...its like if you hit your knuckles, it hurts. They get broken but they get well. It gets hard, so you numb some feelings. So that creates a chemical imbalance, I believe."

Timeline

Perceptions about the duration or course of symptoms were fairly consistent in that most respondents expressed that they had initially believed that their symptoms would be short-lived. In most cases, respondents expected that their symptoms would subside after returning to their homes, but were then surprised when their symptoms persisted longer than they had anticipated. One respondent who continued to experience PTSD symptoms eleven months after the injury relayed, "I thought it was going to be a weekend thing. Like I would forget about it in a week, I was going to just...Like, you know, a bruise. You get bruised up and everything's back in a week." Other respondents did not have a fixed expected timeline, but rather thought the symptoms would eventually subside with time. For example, one respondent stated, "I thought if not that day the next day I would feel better, but now it's going on two years still. The first day, I would just be adjusting because I hadn't been home in awhile, and then the second day I would just be like okay, I'm home. I'm out of there. All that ugly stuff's behind us. But I don't know, instead of behind us, it's like still with me." Another respondent stated, "I just figured, let's see what happens. But one month led to another month, and another. The next thing you know it's already another year since it happened, and so I'm over here, you know what I'm saying?" Another respondent described

how he came to the realization that his symptoms were not dissipating: “For awhile I was thinking that eventually it’ll go away. They were happening I just really never really caught it, but as time went by they started to get a little bit worse and worse. It’s like a ball going down a hill gathering speed, a snowball, getting bigger and bigger, and then generating... going down a hill gaining speed and getting bigger and bigger.... I thought they would go away. But then I realized that they ain’t going away.”

Respondents were then asked about their current thoughts about how much longer their symptoms would last. Most respondents expressed not knowing how long the symptoms would persist. One respondent stated, for example, “I’m not sure. I wish I could get rid of them like hiccups, you know?” Other respondents reported thinking that the symptoms would last for a lengthy duration of time. For example, one respondent stated, “I still wonder how long is it going to last. I kind of think it’s going to be for a long time, you know?” Another respondent described a more chronic, enduring symptom course stating, “I don’t think they’re ever going to get better and I don’t think they’re ever going to get worse. I think these are the cards that they laid me and here I am. I feel that my symptoms are going to last for a very long time.” One respondent thought that the symptoms would never remit stating, “I would like the sadness to be temporary, but I don’t know. I think that’s going to be permanent.”

Consequences

Many respondents described significant consequences related to the traumatic event, including physical consequences of the injury, changes in their personalities and activities, financial difficulties, and relationship problems. When asked more broadly about the consequences of the traumatic injury, a substantial proportion focused on physical aspects, perhaps indicating that the physical consequences of the traumatic event may have been more salient than the psychological consequences. Respondents discussed limited use of arms and legs, chronic pain, and the need for ongoing physical therapy.

In addition to these physical problems, respondents described various consequences resulting from PTSD-related symptoms. Some respondents expressed how their PTSD symptoms impacted how they view themselves. One respondent relayed, “Before I was more using my charisma. It’s amazing. I’ll be working, talking, making them laugh, and just go back to work, but now it’s more just concentrating on work.” A motorcycle accident victim described his view of himself: “I’m barely accepting the fact that I’m not the same person I was no more, you know?...I’m half the person I was before...the good half of me, I feel, is gone. Now this is just the regular half.”

Respondents reported that the PTSD symptoms significantly affected their social relationships. One respondent said that he “can’t stand himself” because of the angry outbursts he has with his family. Another respondent said, “I used to be able to talk to people, help people, and now I cannot do that...’cause of my nerves...I don’t feel the same.” Other respondents relayed that their symptoms interfered with their ability to participate in pleasurable activities. A respondent stated, “I’ll ride Harley’s for the rest of my life but it took a great joy out of riding motorcycles.”

Respondents also described positive or adaptive aspects of their symptoms. Several respondents considered their greater sense of caution and increased appreciation for the fragility of life as positive change. One said, “Before I used to speed, drive fast in a car, you know what I mean? Now I wear my seatbelt, and now it’s like, dude it’s totally different... the opposite, you know?” Another respondent commented: “I think it’s just a normal, safety mechanism that happens when you have a traumatic experience. You know, I think it’s meant to make us better. It’s a mechanism like when you stick your hand in the freakin’ fire

and your pain sensors come on? That's all it is." Other respondents described feeling fortunate to experience emotional symptoms like hypervigilance: "Not everybody gets to experience them. It helps you like see things a lot clearer. It helps out your senses. We all have senses and it helps you out...to train your senses." Another explained: "You're going down the road and you're getting a bad feeling, and that's a good thing when you're traveling at 65 miles an hour on a motorcycle and you're surrounded by cars. That's a *good* thing...if it's an anxiety, it's a safety anxiety."

Controllability

Most respondents appeared to believe that their symptoms were controllable inasmuch as nearly everyone reported having engaged in a variety of attempts to exert personal control over their symptoms. At the same time, respondents expressed varying degrees of belief in the effectiveness of their attempts. A substantial proportion of respondents reported relying on religious or spiritual forms of coping to deal with their symptoms. Fifteen respondents described some type of religious or spiritual coping such as attending church services or bible study, reading motivational material, or relying on God and praying. One respondent described believing that sole dependence on God would alleviate his symptoms. The respondent stated, "They're going to have to clear up in the name of Jesus because I can't do it myself...I feel like I can work it out on my own with help of God, Jesus." Another respondent stated, "Well, if it is God's wish, if God wants to he'll give me back everything...I just ask God that he gives me back my source of energy." Many respondents relayed that the spiritual forms of coping were helpful. One respondent stated, "I think the Christian things tremendously help that way. I don't even think about driving scared or whatever." Another respondent described the benefits of praying relaying, "I'm feeling a little better. I'm not as bitter as I was, you know?" However, one respondent reported more equivocal results, "Like the praying and the crying that'll usually happen in about just one session. But I think it's just after I'm done with it all and I fall asleep, I just wake up and it's like a brand new day. Maybe something new will happen, maybe not."

The second most commonly reported form of self-treatment involved active attempts to avoid focusing on problems and negative thoughts. Respondents reported engaging in a variety of strategies including focusing on "one day at a time," paying attention to the positives, comparing oneself to those who are less fortunate, and distracting oneself by concentrating on other activities such as work, exercise, or writing. One respondent depicted some limited success by focusing on the "day by day." He stated, "Not thinking further away than on that day. Trying to live that day as best as I can and I try to get distracted in a healthy way. It would help like 50%... You may ask why I am doing this if nothing seems to work out. No, then, you start thinking about negative stuff and there it comes again...the whole cycle begins again. The same tape is being played over and over. That is why this is a rollercoaster, sometimes you are up, sometimes you are down. It happens again and again." One respondent described how he uses positive thinking to cope with his symptoms: "Well, once I start going through the pain, then like initially I get mad and stuff. But then I override it with thinking the positive, that you know, I'm not dead, I can still walk, I will find a way to manage my pain. There's still options I have out there, you know? So I just try to keep on looking at a little bit of positive to keep me moving forward, you know?" Another respondent described less successful attempts, "Well, I've tried positive mental thought, but it's not working." Other respondents described re-directing their focus and energy on other parts of their lives. One respondent stated, "Right now, I'm trying to create a five year plan to try to avoid... like a financial thing, things I want to achieve, things I want to have within these five years. So I'm to trying to think less about it. I'm trying to get my... just get out of the topic and always staying alert." Another respondent relayed, "I have notice that now I

am working more. And that is kind of helping me. To keep my mind at work. I think that the busier you are doing something, you kind of forget.”

Less commonly reported were attempts to engage in activities that are connected to respondents’ injuries and are a current source of fear and anxiety. In one exception, a motor vehicle accident survivor relayed how he was coping with his fear of driving by actually engaging in driving but in restricted circumstances. He described coping with his fears by: “Driving, but only on small streets... I think that in some time I will be able to drive like before...Because I have been trying to drive, but I can drive on small streets, but not on the streets with a lot of traffic”. However, the respondent relayed that he still has to depend on other people to drive him to go shopping and run errands even though it has been two years since the accident.

Although none of the participants had actually sought mental health services, several described various ways in which seeking care from a mental health professional might help with their symptoms. Many respondents relayed that expressing their feelings and being listened to by a mental health professional may be beneficial. One respondent stated, “Just letting your feelings out. Letting anger, and happiness, or whatever...just being able to talk to somebody without them having to point a finger at you, and saying, ‘you shouldn’t feel that way, you shouldn’t feel that way.’ Instead, talk to me! I think that would be a benefit to talk to somebody without them being very judgmental, and judging you.” Another respondent expressed some ambivalence about talking to a mental health professional stating, “Whatever was in me that’s bothering me I would be getting it out in the open instead of just being in here and saying it. I’d be somewhere else...I don’t know maybe I would be excited, like, a little happy because I’m getting it out, but I’m not too sure. I mean, I just don’t know if it would help or make it worse.”

Other respondents relayed that mental health professionals might be helpful in providing information or a better understanding of their symptoms. One respondent stated, “I think it would be very helpful...at least, they would give me some kind of direction of what may be the problem.” Another respondent relayed wanting to see a mental health professional for “confirmation of what I’m going through as normal...because sometimes you think, you know, am I just being a baby about this or is this taking me longer than other people? Or is it ever going to go away? Does it go away? I’m sure they might have more answers.” Only one respondent referred directly to symptom reduction as a benefit of seeking mental health services. However, the respondent believed that professional treatment could only diminish but not completely eradicate his symptoms, stating “I don’t think they’ll ever go away..make it, yeah, more controlled, more manageable. Maybe lessen them.”

Discussion

This study examined the illness perceptions of non-treatment seeking trauma injury survivors who met screening criteria for PTSD. Using the commonsense model as a guiding framework (Leventhal et al., 2001), we investigated perceptions related to the *identity*, *causes*, *timeline*, *consequences*, and *controllability* of PTSD-related symptoms. Findings indicated that respondents’ conceptualizations of their PTSD symptoms may have prevented the recognition of symptoms as a serious mental health condition in need of professional treatment.

In terms of illness identity, not one of the respondents used the term PTSD to describe their symptoms. Instead, respondents often labeled their experiences using lay descriptions (e.g., rage, stress), which may not have corresponded strongly with a need for professional intervention. As evidenced in this study and in prior research (Zuvekas & Fleishman, 2008),

the mere presence of psychological symptoms does not necessarily translate into subjective perceptions of mental health problems. Findings suggest that in the absence of a label or semantic structure that identifies symptoms as part of a serious mental health condition, traumatic injury survivors may not have perceived their PTSD symptoms as warranting professional treatment.

With respect to perceptions about the causes of PTSD symptoms, exposure to the traumatic event, environmental factors, and physical impairment resulting from the injury were the most commonly cited factors. Correspondingly, participants engaged in coping strategies that appeared to be aligned with their beliefs about the causes of PTSD symptoms. For example, some respondents viewed their symptoms as unavoidable products of residing in an intrinsically violent environment and believed that relocating to a different neighborhood was the only recourse for controlling their symptoms. Other respondents focused primarily on recovering from their physical injuries with the belief that this would alleviate their emotional symptoms. Thus, the need for mental health treatment may not be apparent given participant beliefs in the role of environmental factors and physical injuries as the source of their PTSD symptoms.

Perceptions of the anticipated or actual consequences of an illness have been associated with variations in coping responses (Leventhal et al., 2001). For example, functional impairment has been shown to be one of the strongest predictors of treatment seeking (Roy-Byrne et al., 2000). However, substantial negative consequences resulting from PTSD symptoms were reported by this study's sample of non-treatment seekers. There may be several possible explanations for this finding. The importance of obtaining treatment for PTSD symptoms may not have figured as prominently in light of the negative physical health consequences from the traumatic injury. When asked broadly about the consequences of the traumatic injury, a significant proportion of respondents focused on physical health-related impairments. Secondly, many respondents viewed their PTSD symptoms, particularly hypervigilance, as adaptive or as having positive consequences. Thus, individuals living in neighborhoods with high rates of violence may interpret their increased hypervigilance as an appropriate response to their danger-filled environs. Therefore, efforts directed at eliminating PTSD symptoms may have been offset by the predominant importance of recovering physically or by beliefs about the potentially adaptive function of some PTSD symptoms.

Regarding timeline perceptions, most respondents initially viewed their symptoms as temporary and self-correcting, but then re-conceptualized their symptoms as chronic and largely unalterable when their symptoms lasted longer than originally anticipated. Both types of timeline perceptions have been associated with refraining from expert intervention (Leventhal et al., 2001), which may have contributed to respondents' lack of mental health service utilization. Interestingly, even though participants' initial conception of their symptoms as short-lived proved to be incorrect, the need to reappraise timeline perceptions did not serve as an impetus to seek professional help. Rather, participants re-adjusted their timeline perceptions to align more closely with their actual experiences.

Beliefs about the controllability of symptoms either via self-treatment or expert intervention have been posited as important influences on coping responses. The most common forms of self-treatment reported by respondents included reliance on spiritual forms of coping and redirecting thoughts and activities away from symptoms and problems. Respondents acknowledged that their attempts at self-treatment provided some symptom relief but not complete and long-lasting control of their symptoms. Many perceived expert intervention as being beneficial in providing emotional cathartic relief or further understanding of their symptoms. However, none of the respondents expressed beliefs that mental health treatment

could completely eradicate their symptoms. It is possible that the combination of a lack of confidence in mental health treatment to cure symptoms and the short-term relief provided by self-treatments may have served to undermine sufficient motivation to obtain professional expert intervention.

Clinical Implications

Findings highlight the potentially important role of illness perceptions in traumatic injury survivors' response to PTSD symptoms. Modifying illness perceptions along each of the dimensions examined in this study may be a possible means to facilitate access to professional treatment. Psychoeducational interventions aimed at providing information about the possible psychological consequences of serious physical injuries may assist trauma survivors in recognizing and identifying PTSD symptoms as part of a serious mental health condition.

In addition to establishing the identity of PTSD symptoms, mental health interventions can be tailored to better match the illness perceptions of traumatic injury survivors. For instance, treatment rationales can be modified to align more closely to beliefs about the causes of PTSD. Individuals who view their PTSD symptoms as being caused by their physical injuries may benefit from knowledge on the bi-directional influence of physical and mental health (U. S. Department of Health and Human Services, 2000). Information confirming beliefs about the effects of physical health on mental health can be given, while also emphasizing the importance of mental well-being on physical recovery. This may be particularly compelling for traumatic injury survivors who place primary importance on recovering physically rather than emotionally. Providing a credible rationale for treatment has been shown to be an important aspect of securing adequate motivation to engage in therapy (Lambert & Lambert, 1984). Moreover, causal beliefs about mental health problems have been associated with perceptions of what is considered appropriate treatment (Kuppin & Carpiano, 2008).

Although many respondents expressed positive views toward mental health services, no one related treatment to the eradication of PTSD symptoms. Providing traumatic injury survivors with evidence for the effectiveness of mental health interventions in treating PTSD may encourage help seeking. Perceptions of treatment effectiveness have been associated with mental health service utilization (Ten Have et al., 2009). However, some evidence suggests that beliefs about the course of illness may also be important to consider (Anglin, Alberti, Link, & Phelan, 2008). For example, even if mental health interventions are perceived to be effective, this may not directly translate into viewing treatments as necessary or needed if symptoms are believed to remit on their own with the passage of time. This has been posited as a possible explanation for the seemingly contradictory finding that African Americans report more positive perceptions of mental health treatment yet underutilize services relative to White Americans (Anglin et al., 2008). A greater proportion of African Americans have been found to believe that mental illnesses will resolve independently from treatment (Anglin et al., 2008).

Thus, traumatic injury survivors may benefit from knowledge of normative responses to serious physical injuries. Providing a timeline for the course of symptoms and for when professional treatment is warranted may improve the recognition of serious mental health problems. As seen in motivational intervention strategies, key components of problem recognition include not only self observation of symptoms, but also the provision of normative information that allows individuals to evaluate experiences against an objective standard (Miller & Rollnick, 2002).

Results also underscore the importance of addressing attempts at self-treatment strategies particularly religious forms of coping with symptoms. Consistent with this study's findings and previous research, relying on religious practices such as praying or attending church gatherings to deal with mental health problems is one of the most commonly reported self-treatment strategies (Brown et al., 2007). Research suggests that individuals can simultaneously believe in the helpfulness of self-coping strategies and expert interventions (Jorm et al., 2006). Mental health interventions can be modified to accommodate and support religious forms of coping that are adaptive, while addressing practices that are potentially detrimental (Organista & Muñoz, 1996).

Finally, findings highlight the need to better understand the experiences of individuals who live in environments with unrelenting stress and violence, which are not fully captured by current psychological nosology (e.g., *post-traumatic stress disorder*) and available interventions. Recent research, however, have yielded promising results for the effectiveness of cognitive-behavioral based treatments in reducing PTSD symptoms among populations at risk for ongoing violence exposure (J. A. Cohen, Berliner, & Mannarino, in press; B. D. Stein et al., 2003).

Findings must be considered in the light of certain study limitations. Even though the PCL has demonstrated good psychometric properties (Norris & Hamblen, 2004), structured clinical interviews that include DSM-IV PTSD criterion A (i.e., horror, helplessness, fear) and F (i.e., functional impairment) are considered the "gold standard" in establishing diagnostic caseness (Weathers, Keane, & Davidson, 2001). This study's use of the PCL may have resulted in some false classifications of PTSD caseness. Nonetheless, this may have had minimal impact on the study's findings given that subthreshold levels of PTSD have been associated with comparable levels of functional impairment that warrant treatment (M. B. Stein, Walker, Hazen, & Forde, 1997; Zlotnick, Franklin, & Zimmerman, 2002). However, to the extent that participants who were in most psychological distress were less likely to participate in this study, additional research is warranted. Moreover, this study was conducted with a relatively small sample that was largely of Hispanic ethnic descent. Thus, additional research with persons from other ethnic and racial backgrounds is needed.

Further, to the extent that this study was limited to certain trauma types and consisted of a population that had both physical and psychological problems, findings may not be generalizable to other trauma populations. Research determining the extent to which the commonsense model elucidates the complex nature of the experiences of physical trauma survivors who suffer physical, as well as psychological, distress is warranted. Moreover, further research is required to better understand how different dimensions of the commonsense model interact to inhibit or promote help seeking. As evidenced in this study, individuals may simultaneously maintain certain illness perceptions that are related to treatment seeking (e.g., negative consequences), while also holding other illness perceptions that may inhibit help seeking (e.g., acute timeline).

It is unclear whether illness perceptions along the core domains of the commonsense model adequately address the complex nature of traumatic injury survivors' experiences. For instance, traumatic injury survivors' often experience illnesses related to both mental and physical health problems. Further research examining the applicability of the commonsense models to co-occurring or multiple illnesses is warranted. In addition, according to the commonsense model, our findings revealed that certain illness perceptions may have been associated with a greater likelihood of help seeking (e.g., negative consequences), whereas other illness perceptions may have inhibited obtaining treatment (e.g., acute timeline). A better understanding of how the different domains of illness perceptions interact in

influencing the help seeking process is needed. This study was exploratory in nature and further research is needed to validate these preliminary findings.

Overall, findings suggest that traumatic injury survivors' conceptualizations of PTSD symptoms may be fruitful areas to target to facilitate access to mental health services. Findings highlight how conceptualizations across each dimension of the commonsense model may influence the recognition of mental health problems and perceived need for treatment. Both problem recognition and perceived need for treatment have been linked to treatment seeking (Edlund, Unützer, & Curran, 2006). Further research is needed to examine whether interventions targeted at modifying conceptualizations of PTSD symptoms can facilitate problem recognition and perceived need for treatment, and ultimately result in increased service utilization. Such studies may be vital to developing interventions that help narrow the gap between mental health need and access to care for survivors of traumatic physical injury.

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Table 1

Commonsense Model Interview Domains with Descriptions and Examples of Grand and Mini Tour Questions

Domains	Grand tour questions to promote discussion	Mini tour questions to promote comparison
Identity <ul style="list-style-type: none"> Symptoms Labels that define it 	“We would like to know more about the types of problems you have been having. Can you tell me all of the problems that you have been having since you were injured?”	<ul style="list-style-type: none"> Emotional reaction to problem Name for symptoms
Timeline <ul style="list-style-type: none"> Anticipated duration or course of illness Time in which treatment is warranted Time required to cure symptoms 	“When these symptoms started happening, did you have any idea how long they would last?”	<ul style="list-style-type: none"> Comparison and discussion of expected timeline with actual timeline
Causes <ul style="list-style-type: none"> External (e.g., stress) Internal (e.g., genetic) 	“What do you think is causing these symptoms?”	<ul style="list-style-type: none"> “Why” follow-up question for each causal factor
Consequences <ul style="list-style-type: none"> Actual or anticipated physical, emotional, economic, or social consequences 	“Are you worried about the symptoms that you are having? What worries you about them? How have these symptoms affected your life?”	<ul style="list-style-type: none"> Importance of making symptom go away Impact of symptoms on various aspects of life
Controllability <ul style="list-style-type: none"> Beliefs about whether professional or self-help can control or cure illness 	“Do you think that there is anything you can do to make these symptoms go away? Have you been trying to do anything to make these symptoms go away?”	<ul style="list-style-type: none"> Specific list of coping techniques Discussion of effectiveness of each technique Discussion of attitudes towards mental health treatment

Table 2

Stages of Analysis Procedures

Stages	Description	Outcome
1	Structural coding	<ul style="list-style-type: none"> • Tagged transcript text segments • Direct correspondence between each text segment and one or more question from interview protocol
2	Pile sorting of structural text segments	<ul style="list-style-type: none"> • Categories of quotes representing themes and sub-themes • Identification of range of types of responses to questions about aspects of commonsense model • Identification of typical and atypical quotes representing themes • Identification of sub-themes that were not previously described as part of the commonsense model
3	Codebook development	<ul style="list-style-type: none"> • Definitions of themes for coders to apply to transcripts <ul style="list-style-type: none"> – Basic description – Inclusion rules – Exclusion rules – Common exemplars – Uncommon exemplars • Lists of quotes for each major theme from commonsense model
4	Reliability analysis	<ul style="list-style-type: none"> • Kappa for each major theme of commonsense model: <ul style="list-style-type: none"> – Identity (.69) – Causes (.75) – Timeline (.85) – Consequences (.77) – Controllability (.82)
5	Within case analysis	<ul style="list-style-type: none"> • Two sets of extended memo writing about themes for each respondent • Comparison of observations of all themes within each case • Identification of: <ul style="list-style-type: none"> – Consistency – Contradictions – Typical quote exemplars