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Are PTSD treatment choices and treatment beliefs related to depression symptoms and depression-relevant treatment rationales?

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ABSTRACT

Given high rates of depression and low rates of treatment utilization among individuals with post-traumatic stress disorder (PTSD), we examined how depression symptoms impact PTSD treatment beliefs and preference (prolonged exposure (PE), sertraline, or PE plus sertraline). We also examined whether PTSD treatment rationales tailored to individuals with symptoms of depression impact PTSD treatment preference/beliefs. Undergraduates ($N = 439$) were given an "imagine self" scenario where they either had symptoms of PTSD or PTSD and depression in the future. Trauma-exposed community members ($N = 203$) reported their own PTSD and depression symptoms. All participants watched standardized treatment rationales for PE and sertraline that were systematically manipulated to include information on depression or not. Across both samples, depression symptoms were associated with significantly increased odds of selecting combination treatment relative to PE alone. For those in the community sample who received the depression-relevant treatment rationale, higher depression symptoms were associated with significantly greater PE credibility and more positive reactions toward PE. Taken together, depression may be associated with a greater preference for combination treatment. However, treatment providers may be able to improve treatment beliefs about PE by offering a treatment rationale that explains that PE tends to help improve symptoms of PTSD and depression.

Cognitive-behavioral therapies (CBTs; see Bisson & Andrew, 2007) and selective serotonin reuptake inhibitors (SSRIs; see Stein, Ipser, & Seedat, 2006) are two empirically-supported treatments for PTSD. More specifically, within CBT, prolonged exposure (PE) has undergone some of the most rigorous evaluation (see Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010); and of the SSRIs, sertraline is one of two FDA approved medications for the treatment of PTSD (Brady et al., 2000; Davidson, Rothbaum, van der Kolk, Sikes, & Farfel, 2001). Despite the availability of effective treatment options, few individuals with PTSD seek treatment. For example, based upon data from the National Comorbidity Survey Replication, only 65% of individuals with PTSD ever make treatment contact (Wang et al., 2005). Furthermore, those who eventually seek treatment often wait many years, with a mean time to treatment contact of twelve years following PTSD onset (Wang et al., 2005). Of those seeking treatment, there is often premature attrition. In research settings, for example, dropout rates range from 0% to 34% (with a mean of approximately 24%) for exposure-based treatments (Hembree et al., 2003) and 13%–64% for SSRIs (Albucher & Liberzon, 2002). In community settings, dropout rates are likely even higher (e.g., Swift & Greenberg, 2012). Although low rates of treatment utilization and high rates of attrition are not specific to PTSD, in the face of effective treatments for PTSD, further research into the factors affecting treatment seeking and treatment engagement for individuals with PTSD is called for.

In particular, treatment preferences may have a significant impact on both treatment seeking and treatment engagement. When preferred and provided treatment modalities match, participants tend to be more adherent with treatment and more likely to have a faster and greater treatment response (Swift, Callahan, & Vollmer, 2011). Thus, by understanding individuals' treatment preferences, and the beliefs underlying those preferences, we may gain insight into the factors facilitating and inhibiting treatment seeking and treatment adherence for PTSD.

One variable that may have an important influence on treatment preference among individuals with PTSD is major depressive disorder (MDD). MDD co-occurs in just over half of individuals with

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PTSD (Rytwinski, Scur, Youngstrom, & Feeny, 2013) and is associated with greater distress and impairment than PTSD alone (e.g., Blanchard, Buckley, Hickling, & Taylor, 1998; Ikin, Creamer, Sim, & McKenzie, 2010; Momartin, Silove, Manicavasager, & Steel, 2004; Nixon, Resick, & Nishith, 2004; Post, Zoellner, Youngstrom, & Feeny, 2011). Despite research suggesting that both sertraline (e.g., Brady & Clary, 2003) and PE (e.g., Hagenaars, van Minnen, & Hoogduin, 2010; van Minnen, Arntz, & Keijsers, 2002) may be effective treatments for individuals with co-occurring PTSD and MDD, relative to individuals with PTSD alone, individuals with co-occurring PTSD and depression may shy away from psychotherapy because they may not have the energy or motivation to engage in psychotherapy (Feeny, Zoellner, Mavissakalian, & Roy-Byrne, 2009). In keeping with this finding, although individuals with PTSD tend to prefer PE over sertraline (e.g., Feeny, Zoellner, Mavissakalian, et al., 2009), when given the choice of sertraline, PE, or no treatment, depression symptoms were associated with increased positive reactions to sertraline and reduced positive reactions to PE among trauma-exposed women (Feeny, Zoellner, & Kahana, 2009). Similarly, among treatment seeking individuals with PTSD, individuals with MDD were more likely to choose sertraline than those without, though regardless there was a preference for PE (Feeny, Zoellner, Mavissakalian, et al., 2009). Thus, although both PE (e.g., Hagenaars et al., 2010; van Minnen et al., 2002) and sertraline (Brady & Clary, 2003) have been shown to be effective treatments for individuals with co-occurring PTSD and depression, both symptoms of depression and an MDD diagnosis appear to be associated with more positive beliefs about, and a greater preference for, sertraline.

In addition to the impact of depression on PTSD treatment preference, a clinician's description of a treatment, that is a treatment rationale, may have a significant impact on treatment preference and beliefs. Specifically, if a treatment rationale helps the patient understand how the treatment is relevant to them, they may have greater treatment satisfaction, adherence, and outcomes. Consistent with this notion, greater acceptance of the treatment rationale has been associated with lower depression severity following cognitive-behavioral therapy for depression (Addis & Jacobson, 2000). Interestingly, however, the limited research examining PTSD treatment rationale presentation suggests that adding more information to a treatment rationale has a very limited impact on treatment beliefs (Feeny, Zoellner, & Kahana, 2009). In particular, adding treatment mechanism information increased positive personal reactions to PE and decreased participants' chance of selecting sertraline, although the magnitude of these effects was small (Feeny, Zoellner, & Kahana, 2009). However, one plausible explanation for these small effects is that the treatment rationales were not tailored to a particular subgroup of patients, like those with co-occurring PTSD and depression.

To date, no studies have examined whether tailoring PTSD treatment rationales to individuals with co-occurring PTSD and depression impacts treatment beliefs or preferences. However, research on depression, as well as a variety of physical health conditions (e.g., asthma, diabetes, and hypertension), has shown that patient education about the disease process and the mode of action of treatment can significantly improve treatment adherence (e.g., van Dulmen et al., 2007). Although not explicitly tested, it is assumed that patient education improves adherence, at least in part, by making the patient feel more positively about the treatment (e.g., that the treatment is credible and could be helpful). Thus, individuals with co-occurring PTSD and MDD may have more positive beliefs about PTSD treatments if they are provided with education about the fact that depression frequently co-occurs with PTSD and that PE and sertraline tend to be associated with improvements in both PTSD and depression symptoms. This line of research could provide insight into ways to tailor PTSD treatment rationales to individuals with symptoms of depression, which may ultimately improve treatment seeking and adherence.

In the current study, we examined whether systematically tailoring PTSD treatment rationales to include information on co-occurring PTSD and depression impacted treatment preference and beliefs. We utilized two large, complementary samples: an undergraduate sample and a trauma-exposed community sample. A sample of undergraduate students who were selected regardless of their history of trauma exposure is important to study for several reasons. First, how individuals perceive treatment options, regardless of their history of trauma exposure, tells us considerable information about pre-existing biases individuals may have about seeking mental health treatment. Second, a young adult sample, in particular, is at high risk for trauma exposure. For example, approximately half of first sexual assaults occur before the age of 18 and an additional 29.4% occur between the ages of 18 and 24 (Tjaden & Thoennes, 1998). They are also at high risk of developing depression; estimates suggest over 8% of individuals aged 18–22 have experienced a depressive episode in the past year (Substance Abuse and Mental Health Services Administration, 2012). Thus, understanding treatment preference in this age group is particularly important. However, we also wanted to maximize the generalizability and clinical applicability of our findings. Thus, we also collected a sample of trauma-exposed community members. Both samples watched standardized, videotaped PE and sertraline treatment rationales that either focused solely on PTSD symptoms or on both PTSD and depression symptoms. In the undergraduate sample, using a perspective taking paradigm (Davis et al., 2004), participants were asked to imagine in the future that they had either PTSD or co-occurring PTSD and MDD (PTSD + MDD) symptoms. In the community sample, participants reported their own PTSD and depression symptoms. Both reactions to PE and sertraline and treatment preference among PE, sertraline, combined PE and sertraline, or no treatment were assessed. We predicted that depression (defined as individuals assigned to the PTSD + MDD instruction condition in the undergraduate sample and those with higher self-reported depression symptoms in the community sample) would be associated with more positive beliefs about sertraline, less positive beliefs about PE, and a greater preference for sertraline or the combined treatment option. Furthermore, rationale type would interact with symptoms of depression such that individuals who received the depression-relevant treatment rationale and had symptoms of depression would have more positive beliefs about both PE and sertraline and a greater chance of selecting the combination treatment.

Method: undergraduate sample (study 1)

Undergraduate participants

Four hundred and thirty-nine individuals (57.8% women) were recruited via undergraduate psychology subject pools at two large metropolitan universities. Inclusion criteria included being between the ages of 18 and 65 years old and fluent in English.

Demographic information can be seen in Table 1. Within this sample, approximately 51.9% ($n = 228$) reported experiencing at least one or more traumatic events on the Posttraumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997). Of these, allowing for multiple events to be experienced by one person, 30.3% reported a life-threatening illness, 46.9% reported a serious accident, 36.8% a natural disaster, 33.8% a non-sexual assault, 23.2% a sexual assault, 7.8% combat, torture, or imprisonment, and 21.1% reported other traumatic events. Following strict adherence to the DSM-IV Criterion A event on the PDS, 36.5% ($n = 159$) of