Mindfulness and experiential avoidance as predictors of posttraumatic stress disorder avoidance symptom severity

Brian L. Thompson*, Jennifer Waltz

Department of Psychology, The University of Montana, 32 Campus Dr., Missoula, MT 59812, USA

Abstract

Mindfulness reflects an awareness of present moment experiences through an attitude of acceptance and openness (Bishop et al., 2004; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008). Experiential avoidance, by contrast, refers to attempts to change, alter, or avoid private experiences (e.g., thoughts, feelings, sensations), and it is believed to underlie a number of psychopathologies, including PTSD (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). We were interested in the ability of mindfulness to predict the variance of PTSD avoidance symptom severity above and beyond experiential avoidance. 378 introductory psychology students were administered self-report measures of PTSD, mindfulness, experiential avoidance, thought suppression, alexithymia, and avoidant coping. Mindfulness, specifically nonjudgment of experiences, accounted for a unique portion of the variance in PTSD avoidance symptoms.

1. Introduction

Of the three symptom clusters associated with PTSD, research suggests that avoidance symptoms (criterion C) are the most reliable indicator that an individual may meet full PTSD criteria (see Nemeroff et al., 2006), and they appear to be most predictive of overall PTSD symptom severity (Boeschen, Koss, Figuerdo, & Coan, 2001; Marshall et al., 2006; Marx & Sloan, 2005). Criterion C symptoms include efforts to avoid experiences related to the trauma, difficulty recalling the trauma, diminished interest in activity, feelings of detachment, restricted affect, and a feeling that one’s future has been foreshortened (American Psychiatric Association, 2000). Avoidance strategies are also thought to underlie several psychopathologies, such as substance abuse and obsessive–compulsive disorder, as well as PTSD. These patterns of behaviors have been given the umbrella term experiential avoidance within the Acceptance and Commitment Therapy (ACT) literature (Hayes, Strosahl, & Wilson, 1999). Experiential avoidance occurs when an individual engages in strategies to blunt, alter, or control distressing private experiences, such as thoughts, emotions, and physiological sensations (Hayes et al., 1996). A reliance on experiential avoidance strategies appears to exacerbate or maintain PTSD symptoms over time (Tull, Gratz, Salters, & Roemer, 2004). Additionally, they may reduce one’s flexibility in dealing with situations, negatively impacting quality of life (Kashdan, Barrios, Forsyth, & Steger, 2006).

Following exposure to a traumatic event, avoidance behaviors may initially be focused on activities and stimuli that remind the individual of, or are connected to the individual’s experience of the trauma; however, these strategies may gradually generalize to non-trauma related stimuli and contribute to the maintenance of posttraumatic symptoms in the long-term (Polusny & Follette, 1995; Rosenthal, Rasmussen Hall, Palm, Batten, & Follette, 2005; Varra & Follette, 2005. Blackledge (2004) offers three reasons for why experiential avoidance may maintain PTSD symptoms over time: It limits opportunities for positive reinforcement; some types of avoidance behaviors such as substance abuse may increase exposure to aversive experiences; as no new learning occurs, it may maintain verbal rules which continue to limit exposure to real world consequences (e.g., “Being in crowds is dangerous”). As experiential avoidance is a very broad term, we were interested in examining specific avoidance strategies that have an established research base within the PTSD literature.

1.1. Types of experiential avoidance associated with PTSD

1.1.1. Alexithymia

The term alexithymia was first introduced by Sifneos (1973) to describe patients exhibiting psychosomatic symptoms who had difficulty identifying and describing emotions. Recent research suggests that alexithymic individuals have difficulty drawing relationships between emotions and physiological sensations (Waller & Scheidt, 2004). Stewart, Zvolensky, and Eifert (2002) suggest that...
that alexithymia is a form of “emotional constriction” and subset of experiential avoidance.

The relationship between alexithymia and PTSD may be bidirectional. On one hand, there is evidence that individuals higher in alexithymia may be more likely to develop PTSD following trauma exposure (Kosten, Krystal, Giller, Frank, & Dan, 1992). Higher levels of alexithymia may also be a consequence of PTSD symptoms. Söndergaard and Theorell (2004) found that alexithymia increased following exposure to trauma in a sample of war refugees assessed at 3-month intervals. Badura (2003) suggests that alexithymia in individuals with PTSD may be better understood as representative of the emotional numbing component of PTSD than as a distinct construct, that individuals with PTSD begin to employ an avoidance-based coping style to deal with reexperiencing and hyperarousal symptoms. Other researchers have found a strong relationship between alexithymia and emotional numbing in individuals with PTSD (Frewen, Evans, Maraj, Dozois, & Partridge, 2008a; Frewen et al., 2008b; Fukunishi, Sasaki, Chishima, Anze, & Saijo, 1996). Frewen et al. suggest that trauma disrupts an individual’s ability to interpret the relationship between mind and body experiences.

1.1.2. Thought suppression

Thought suppression is one of the most widely studied forms of experiential avoidance. There are three consequences associated with thought suppression: (1) an increased likelihood of target thoughts following suppression; (2) a sudden increase in target thoughts following suppression; (3) an increase in intrusive target thoughts during suppression when cognitive demands begin to interfere with attempts at suppression (Wenzlaff & Wegner, 2000). The use of thought suppression appears to predict PTSD symptom severity (Mayou, Ehlers, & Bryant, 2002; Steil & Ehlers, 2000). In what they call the theory of ironic processes, Wenzlaff and Wegner (2000) argue that the continued monitoring for unwanted thoughts interferes with the overarching goal of thought suppression, making unwanted thoughts more salient and thus priming a rebound effect. Shipered and Beck (1999, 2005) have found that individuals with PTSD exhibited a rebound effect in trauma-related thoughts following a deliberate suppression, but trauma survivors without PTSD did not exhibit a rebound effect, suggesting that the rebound effect may play a role in the maintenance of PTSD symptoms.

1.1.3. Avoidant coping

Avoidant coping refers to the tendency to respond to distressing stimuli through distraction, such as through socializing or watching television (Endler & Parker, 1990, 1994). Following trauma, individuals may engage in strategies to avoid stimuli that remind them of the traumatic event (Steil & Ehlers, 2000). Although avoidant coping may be adaptive in the short term in some situations (Chaffin, Wherry, & Dykman, 1997), studies have found that an avoidant coping style is predictive of PTSD symptomatology (e.g., Gil, 2005; Scarpa, Haden, & Hurley, 2006). In the Gil study, the researcher had collected his sample of coping styles for another study 2 weeks prior to a terrorist attack and was able to collect a posttrauma measure of coping 1 month after the attack. PTSD was assessed 5 months later. Similar to alexithymia, the results of this research suggest a bidirectional relationship between avoidant coping and PTSD: Avoidant coping may create a vulnerability to developing PTSD following trauma exposure, and trauma survivors may begin applying avoidant coping strategies following trauma.

1.2. Mindfulness

The concept of mindfulness was originally inspired by 2500 year-old Buddhist meditation practices. Much of the recent interest in mindfulness and mindfulness-based treatments can be traced to Kabat-Zinn’s (1990) Mindfulness-Based Stress Reduction program. Mindfulness techniques have been incorporated into several treatments associated with improved outcomes (e.g., Grossman, Niemann, Schmidt, & Walach, 2004; Melbourne Academic Mindfulness Interest Group, 2006).

As mindfulness-based treatments have proliferated, researchers have attempted to operationally define mindfulness. Definitions tend to include an awareness component and attitudinal component (e.g., Bishop et al., 2004; Kabat-Zinn, 1990). Most recently, Cardaccio et al. (2008) have conceptualized mindfulness as a general tendency towards greater awareness of one’s experiences, private and public, and bringing an attitude of acceptance and non-judgment to these experiences. They suggest that awareness of experience and the attitude of acceptance with which one engages one’s experience are orthogonal constructs. This makes the attitudinal component important in defining mindfulness, as awareness alone may be insufficient. Baer, Smith, and Allen (2004) found that in samples largely naive to formal meditation practice, the tendency to be aware of one’s experience was associated with greater judgment of that experience. Therefore, an attitude of openness and nonjudgment towards one’s experiences may be a crucial mechanism of change in promoting the positive benefits associated with mindfulness (Shapiro, Carlson, Astin, & Freedman, 2006). This is consistent with an ACT definition of mindfulness, which includes contact with the present moment, acceptance of private experiences and willingness to remain in contact with them, and awareness of private experiences as content that are separate from the experience of one’s self (Fletcher & Hayes, 2005). Within the ACT literature, acceptance of and willingness to embrace one’s experience is reflective of a core ACT process that is considered the alternative to experiential avoidance (Hayes et al., 1999). Consequently, awareness of experience without acceptance may not rule out experiential avoidance.

Although individuals higher in mindfulness may experience negative thoughts, they appear to exhibit a greater ability to “let go” of negative thoughts and focus their attention on healthier ways of relating to their experiences (Frewen et al., 2008a). Greater mindfulness may enhance the ability of individuals to label negative affective stimuli, which may, in turn, allow them some degree of distance or detachment from these experiences (Creswell, Way, Eisenberger, & Lieberman, 2007). Consequently, cultivation of mindfulness can create a sea change in the way one approaches one’s experience, allowing one to develop greater stability, meaning, flexibility, and less reactivity (Shapiro et al., 2006).

The last ten years has seen an increase in the use of mindfulness-based treatments and techniques, in part to counter avoidance and help people engage their experiences more mindfully (see Baer, 2003). Although researchers have begun to explore the use of mindfulness in the treatment of trauma survivors (Batten, Orsillo, & Walser, 2006; Follette, Palm, & Rasmussen Hall, 2004), there has been little research exploring the relationship between mindfulness and PTSD; thus, the relationship between mindfulness and PTSD symptoms remains unclear.

1.3. Mindfulness as a predictor of avoidance symptoms

The main purpose of this study was to incorporate mindfulness into an experiential avoidance understanding of PTSD. Relationships between measures of mindfulness and experiential avoidance have been explored in previous research (Baer et al., 2004; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Hayes et al., 2004), but not within a trauma population. Understanding the relationship between mindfulness and PTSD could help researchers to tailor mindfulness and acceptance-based treatments for the treatment of trauma survivors. We were interested in exploring the relationship
between experiential avoidance and PTSD avoidance symptoms, and whether mindfulness adds any additional predictive power. It was hypothesized that greater experiential avoidance would be predictive of greater PTSD avoidance symptoms severity, and that greater mindfulness would be predictive of lower PTSD avoidance symptom severity above and beyond measures of experiential avoidance.

2. Method

2.1. Participants

Participants consisted of Introductory Psychology students (N = 378; 267 females), 18 years or older. (One demographics form was left incomplete.) Ages ranged from 18 to 51 (M = 19.56, SD = 3.44), with 18 being the modal age (45.2%) and 19 being the median age.

2.2. Measures

Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006). The FFMQ is a 39-item self-report measure of five facets of mindfulness derived from a factor analysis of five existing mindfulness measures. Items are rated on a Likert scale from 1 (never or very rarely true) to 5 (very often or always true). The five subscales reflect tendencies towards: Observing one’s experience (observe); describing or putting words to one’s experience (describe); acting with awareness in everyday life (act with awareness); nonjudging of experience (nonjudgment); and nonreactivity towards internal stimuli (nonreactivity). The observe subscale does not appear to load significantly on an overall mindfulness factor, and it has been found to correlate to maladaptive constructs in nonmeditating samples but not in samples with meditation experience (Baer et al., 2006, 2008). Internal consistency was acceptable (alphas were .75 and above), and the FFMQ has also exhibited acceptable convergent and discriminant validity with measures of thought suppression and experiential avoidance (Baer et al., 2006).

Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004). The AAQ is 9-item self-report measure of psychological flexibility and experiential avoidance rated on 7-point Likert scale from 1 (never true) to 7 (always true). Higher scores are related to greater experiential avoidance. Test-retest reliability was .64 over a 4-month period. Internal consistency was acceptable (α = .70). The AAQ has been found to have good convergent and discriminant validity with measures of thought suppression and experiential avoidance (Baer et al., 2006).

White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994). The WBSI is a 15-item self-report measure of thought suppression. Items are rated on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Items are totaled for a unidimensional score. WBSI is a widely used measure of thought suppression and has exhibited good internal consistency (above .70) and appropriate convergent and discriminant validity.

Coping in Stressful Situations (CISS; Endler & Parker, 1994). The CISS is a 48-item self-report measure of coping that categorizes coping strategies according to one of three styles: Task oriented, emotion oriented, and avoidance oriented. Items are rated on a 5-point Likert scale from 1 (not at all) to 5 (very much). It was based on the 70-item Multidimensional Coping Inventory (MCI, Endler & Parker, 1990) and has been used with college, adult, and adolescent samples. Both emotional oriented and avoidance oriented coping styles appear to be related to the construct of experiential avoidance (Walser & Hayes, 1998); consequently, both were examined in this study. The CISS appears to have excellent psychometric properties. Alphas were all above .75, and it exhibited appropriate convergent and discriminant validity with other measures of coping styles (Endler & Parker, 1994).

Toronto Alexithymia Scale-20 (TAS-20; Bagby, Parker, & Taylor, 1994a, 1994b). The TAS-20 is a 20-item self-report measure of alexithymia. Each item is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Factor 1 (identify feelings) assesses the ability to identify feelings and distinguish them from physical sensations that accompany emotional arousal. Factor 2 (describe feelings) assesses the ability to describe feelings to others. Factor 3 (externally oriented) assesses externally oriented thinking, a tendency towards concrete thinking, often to the exclusion of emotional responses to stimuli. A recent re-assessment of the psychometric properties of the TAS-20 found internal consistency alphas above .70 for each factor in a community sample (Parker, Taylor, & Bagby, 2003).

Posttraumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997). The PDS is a self-report measure of PTSD symptoms that corresponds to DSM-IV criteria. Participants are offered a checklist of 12 traumatic events (including “other”) that they may have experienced and are then asked which disturbed them the most in the past month. They then rate 17 items corresponding to each of the DSM-IV PTSD criteria: Reexperiencing (5), avoidance (7), and hyperarousal (5). Summing the 17 symptom items provides a symptom severity score. Coefficient alphas were .92 for total symptom severity, .78 for reexperiencing, .84 for avoidance, and .84 for arousal. It exhibited strong convergent validity with structured clinical interviews for PTSD.

2.3. Procedure

Participants signed up for the study in order to receive experimental class credit. They completed questionnaire packets in private, individual rooms. Four participants were eliminated due to incomplete data.

Forty-four participants (11.6%; 33 females) of the total sample (N = 378) met PDS criteria for PTSD, and 39.3% reported a criterion A qualifying trauma but did not meet PDS PTSD criteria (n = 147). Of those who met PDS PTSD criteria, 9 (20.5%) endorsed “sexual assault” and 8 endorsed “life-threatening illness” (18.2%). In addition, 10 (43.2%) wrote in a trauma type: These included child abuse (n = 2), witnessing a partner’s suicide or attempted suicide (n = 3), and death in the family (n = 2). Because our sample of participants who met PDS PTSD criteria was too small to analyze, and to capture greater variance across posttraumatic stress symptoms, the PDS PTSD (n = 44) sample was combined with the sample of individuals who reported a Criterion A trauma but who did not meet PDS PTSD criteria (n = 147). We labeled this sample Posttraumatic Stress Symptoms (PSS; n = 191). Subsequent analyses were computed with this sample. Means and Standard Deviations are reported in Table 1.

3. Results

3.1. Internal consistency

The following Cronbach’s coefficient alphas were computed for the entire sample. FFMQ subscales were: Observe (α = .77); describe (α = .90); act with awareness (α = .88); nonjudgment (α = .89); and nonreactivity (α = .75). Measures of experiential avoidance were: AAQ (α = .67); WBSI (α = .87); CISS emotion oriented coping (α = .88) and avoidance oriented coping (α = .80); TAS-20 subscales Factor 1 (identify feelings; α = .82), Factor 2 (describe feelings; α = .79), and Factor 3 (externally oriented thinking; α = .63). The AAQ, WBSI, CISS, and TAS-20 are referred to as our measures of “experiential avoidance” throughout the text.
avoidance in the PSS sample. For each analysis, one experiential avoidance measure was entered into Block 1, and the four FFMQ subscales (i.e., describe, act with awareness, nonjudgment, and nonreactivity subscales) that correlated significantly with PDS PTSD avoidance symptom severity were entered into Block 2. PTSD PTSD avoidance symptom severity was the dependent variable.

All measures of experiential avoidance individually accounted for a significant portion of the variance in PDS PTSD avoidance symptom severity in the first step: AAQ \([F(1, 188) = 25.24, p < .01]\); WBSI \([F(1, 185) = 40.45, p < .01]\); TAS-20 Factor 1 (identify feelings) \([F(1, 188) = 56.58, p < .01]\); and CISS emotion oriented coping subscale \([F(1, 175) = 31.81, p < .01]\). When adding four of the five FFMQ subscales (i.e., describe, act, nonjudge, nonreact) in the second step, mindfulness—specifically, the facet nonjudgment—accounted for a significant portion of the variance of PTSD avoidance symptom severity beyond the contribution of experiential avoidance: AAQ \([F(Change, 184) = 4.26, p < .01]\); WBSI \([F(Change, 181) = 3.16, p = .02]\); TAS-20 Factor 1 (identify feelings) \([F(Change, 2, 184) = 2.50, p = .04]\); and CISS emotion oriented coping \([F(Change, 171) = 2.93, p = .02]\). See Table 3 for regression analyses with adjusted \(R^2\) and semipartial \(R^2\).

In summary, mindfulness and experiential avoidance together significantly contributed to predicting the variance in PTSD symptom severity above and beyond experiential avoidance alone. Of the four mindfulness subscales entered in each model, the FFMQ nonjudgment subscale was significant across all separate regression models.

### 4. Discussion

This study sought to investigate the degree to which measures of experiential avoidance predicted PTSD avoidance symptoms severity, and whether mindfulness adds to the prediction of PTSD avoidance symptoms, above and beyond the predictive ability of measures of experiential avoidance. This question was explored in a nonclinical sample of individuals who reported a Criterion A trauma on a self-report PTSD measure, but who did not meet full PTSD criteria according to the measure. We labeled this our posttraumatic stress symptoms (PSS) sample. Overall, mindfulness, particularly the facet nonjudgment or acceptance of everyday experiences, predicted additional variance in avoidance symptom severity. As one reviewer suggested, because self-report measures of experiential avoidance require an awareness that one is avoiding, the inclusion of experiential avoidance measures may have served as a control variable for our measure of trauma-related avoidance. Consequently, controlling for what may be viewed as a more pathological form of awareness (i.e., being aware of dis-

### Table 1

Means and standard deviations for PSS sample \((N = 191)\).

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
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<tbody>
<tr>
<td>FFMQ observe</td>
<td>27.11</td>
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<tr>
<td>FFMQ describe</td>
<td>27.57</td>
<td>5.88</td>
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<tr>
<td>FFMQ act</td>
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<td>5.77</td>
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<td>FFMQ nonjudge</td>
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<td>6.41</td>
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<td>FFMQ nonreact</td>
<td>21.13</td>
<td>3.78</td>
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<td>AAQ Factor 1</td>
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<tr>
<td>WBSI</td>
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<tr>
<td>TAS-20 F1</td>
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<td>TAS-20 F2</td>
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<td>TAS-20 F3</td>
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<td>CISS emotion</td>
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<tr>
<td>CISS avoidance</td>
<td>4.88</td>
<td>3.29</td>
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</table>

Note: *M* = mean; SD = standard deviation; FFMQ = Five Facet Mindfulness Questionnaire; AAQ = Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory; TAS-20 = Toronto Alexithymia Scale-20; CISS = Coping in Stressful Situations.

### 3.2. Avoidance symptom severity, mindfulness, and experiential avoidance in a sample with posttraumatic stress symptoms

We were looking at the relationship between mindfulness and experiential avoidance with PTSD avoidance symptom severity in a sample of people who had experienced a traumatic event, the PSS sample. Normality, linearity, and the presence of outliers were assessed through normal probability plots and scatterplots of the standardized residuals. None of these assumptions appear to have been violated. Standardized residuals were less than 3.3 and greater than −3.3, per Tabachnick and Fidell’s (1996) recommendations.

Multicollinearity was examined among the measures of experiential avoidance and mindfulness prior to running the regression analyses, and Pearson product-moment correlation coefficients were calculated. We used Tabachnick and Fidell’s (1996) recommendation that variables with a bivariate correlation of .7 or higher not be included in the regressions. The relationship between the TAS-20 Factor 2 subscale and the FFMQ describe subscale was the only bivariate correlation to violate this assumption \((r = −.73, p < .01)\); consequently, the TAS-20 Factor 2 subscale was not included in the regression analyses. Only independent variables (i.e., experiential avoidance and mindfulness) that exhibited significant correlations with the dependent variable (PTSD avoidance symptoms severity) were included in the regression analyses. These values are displayed in Table 2.

Hierarchical multiple regression analyses were conducted to examine the extent to which mindfulness measures predicted PTSD avoidance symptom severity beyond measures of experiential avoidance in the PSS sample. For each analysis, one experiential avoidance measure was entered into Block 1, and the four FFMQ subscales (i.e., describe, act with awareness, nonjudgment, and nonreactivity subscales) that correlated significantly with PDS PTSD avoidance symptom severity were entered into Block 2. PTSD PTSD avoidance symptom severity was the dependent variable.

### Table 2

Pearson product-moment correlation coefficients for PSS sample \((N = 191)\).

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<tbody>
<tr>
<td>1. PDS avoidance</td>
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<td>2. FFMQ observe</td>
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<td>3. FFMQ describe</td>
<td>−18**</td>
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<td>4. FFMQ act</td>
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<td>6. FFMQ nonreact</td>
<td>−.20**</td>
<td>−.26</td>
<td>−.20</td>
<td>−.28</td>
<td>.19**</td>
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<td>7. AAQ</td>
<td>−.37**</td>
<td>−.06</td>
<td>−.37</td>
<td>−.48</td>
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<td>8. WBSI</td>
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<td>−.18</td>
<td>−.17</td>
<td>−.44</td>
<td>−.52</td>
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<td>9. CISS emotion</td>
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<td>10. CISS avoidance</td>
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<td>.06</td>
<td>.16</td>
<td>−.05</td>
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<td>.36**</td>
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</table>

Note: FFMQ = Five Facet Mindfulness Questionnaire; AAQ = Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory; CISS = Coping in Stressful Situations; TAS-20 = Toronto Alexithymia Scale; PDS = Posttraumatic Stress Diagnostic Scale.

\(p < .05\)

\(p < .01\)
Hierarchical regression analyses for PTSD avoidance symptoms for the PSS sample (N = 191).

<table>
<thead>
<tr>
<th>Step 1: Experiential avoidance</th>
<th>Step 2: Mindfulness</th>
</tr>
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<tbody>
<tr>
<td>adj $R^2$</td>
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<tr>
<td>1. AAQ</td>
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<tr>
<td>2. FFMQ describe</td>
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<td>3. FFMQ act</td>
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<td>4. FFMQ nonjudge</td>
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<td>.18</td>
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**Note:** WBSI = White Bear Suppression Inventory; TAS-20 = Toronto Alexithymia Scale-20; AAQ = Acceptance and Action Questionnaire; CISS = Coping in Stressful Situations; FFMQ = Five Facet Mindfulness Questionnaire.

Among the specific types of experiential avoidance, alexithymia – particularly difficulty identifying feelings – and thought suppression were the most robust predictors of PTSD avoidance symptom severity. Because of the cross-sectional nature of this study, we cannot determine a relationship between experiential avoidance and PTSD avoidance symptoms. There is some evidence that alexithymic individuals may be more likely than non-alexithymic individuals to develop PTSD after a trauma exposure (Kosten et al., 1992); other evidence suggests that higher levels of alexithymia in PTSD samples are associated with the emotional numbing element of PTSD (Frewen et al., 2008b; Fukunishi et al., 1996). Trauma may disrupt an individual’s ability to interpret bodily sensations (Frewen et al., 2008b), and trauma survivors may rely on avoidance-based coping strategies that engender emotional numbing (Badura, 2003). The use of thought suppression to manage distressing post-traumatic symptoms may serve to make these thoughts more salient, creating a rebound effect and maintaining PTSD symptom severity (e.g., Shephard & Beck, 2005). Additionally, studies have found that thought suppression explained a significant portion of the variance of total PTSD symptom severity and mediated the relationship between PTSD and negative mood, even when general psychiatric symptom distress was accounted for (Rosenthal et al., 2005; Tull et al., 2004). The AAQ, our general measure of experiential avoidance, was a weaker predictor of PTSD avoidance symptom severity than alexithymia and thought suppression. Other researchers have found that the relationship between the AAQ and PTSD symptom sever-

trressing experiences in order to attempt to control them) may have allowed a clearer view of the predictive power of specific mindfulness facets, particularly nonjudgment. Nonjudgment may have been the strongest predictor because it is especially contrary to experiential avoidance, more so than other aspects of mindfulness that reflect basic awareness only (i.e., the capacity to observe, describe, or mindfully engage one’s experience). Cardaciotto et al. (2008) recently developed a mindfulness measure consisting of two orthogonal constructs: Awareness and acceptance. Mindful acceptance was negatively correlated to forms of experiential avoidance such as rumination and thought suppression whereas mindful awareness was not (Cardaciotto et al., 2008). The predictive power of nonjudgment in this study, above and beyond other mindfulness facets, particularly nonjudgment. Nonjudgment may have a prophylactic effect in protecting against the development of PTSD in traumatized individuals.
ity disappears when general psychiatric distress is accounted for in the model and suggest that the AAQ may be too broad a measure to uniquely account for posttraumatic symptoms, or it may mediate PTSD (Morina, 2007; Tull et al., 2004).

Interestingly, although emotion oriented coping was related to PTSD avoidance symptom severity, avoidant coping was not. One would expect that avoidant coping would be associated with PTSD avoidance symptoms, as avoidant coping has been associated with general PTSD symptom severity (e.g., Gil, 2005; Scarpa et al., 2006). None of these studies used the Coping in Stressful Situations (CISS) scale, however. The items of the avoidant coping subscale of the CISS reflect more externally oriented and concrete actions (e.g., “Window shop” or “Phone a friend”), whereas the emotional coping subscale reflects more internal experiences (e.g., “Become very tense” or “Get angry”). For individuals experiencing posttraumatic stress symptoms, distress-related avoidance strategies may be more pervasively applied to private than public experiences. This makes intuitive sense, as it is easier to avoid physical trauma-related triggers than to avoid one’s own thoughts, emotions, and bodily sensations.

4.2. Limitations

There are several limitations of this study. Perhaps the largest is that, as with any convenience sample of college students, the majority of whom are between 18 and 19 years of age, the results may not be a truly representative sample. This sample may be higher functioning than a clinical sample; consequently, they may possess more adaptive coping skills than a clinical sample seeking treatment. Future research may explore the relationship between mindfulness and experiential avoidance with PTSD avoidance symptoms in a clinical sample.

Also, because of the cross-sectional design of the study, it is impossible to discern if the development of PTSD symptoms leads to lower mindfulness and greater experiential avoidance, or if pre-existing factors dispose traumatized individuals towards developing PTSD. As the sample included both individuals who met and who did not meet PTSD criteria according to the PDS, there may be differences between these two samples. In addition, although the PDS has exhibited excellent psychometrics and appears to map onto DSM PTSD criteria very clearly, a self-report measure of PTSD is not a substitute for a clinical interview. Research with PTSD clinical samples is needed to test more complicated models of the role of mindfulness in predicting PTSD avoidance symptom severity.

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