Disclosure of traumatic experiences, dissociation, and anxiety in group therapy for posttraumatic stress

Alana Bowen\(^{a}\); Mike Shelley\(^{a}\); Edward Helmes\(^{a}\); Martha Landman\(^{b}\)

\(^{a}\) Department of Psychology, James Cook University, Townsville, QLD, Australia
\(^{b}\) Mater Misericordiae Hospital, Townsville, QLD, Australia

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Disclosure of traumatic experiences, dissociation, and anxiety in group therapy for posttraumatic stress

Alana Bowen\textsuperscript{a,b}, Mike Shelley\textsuperscript{c,d}, Edward Helmes\textsuperscript{a*} and Martha Landman\textsuperscript{b}

\textsuperscript{a}Department of Psychology, James Cook University, Townsville, QLD 4811, Australia; \textsuperscript{b}Mater Misericordiae Hospital, Townsville, QLD, Australia; \textsuperscript{c}Department of Psychology, University of Queensland, Queensland, Australia; \textsuperscript{d}Queensland Health, Bundaberg, Australia

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This study examined the relationships among the symptoms of posttraumatic stress disorder (PTSD), anxiety, dissociation with self-disclosure among 72 male military veterans with PTSD who were attending an eight-week group therapy treatment program. At intake to the program, participants were administered a baseline demographics questionnaire, the Clinicians Administered PTSD Scale, a dissociation measure, and the Hospital Anxiety and Depression Scale (HADS). Participants completed the dissociation measure and the HADS again at discharge from the program and at a follow-up three months later. We found that the frequency and severity of dissociation reported by participants decreased over time. It was also found that high self-disclosers had higher levels of dissociation when compared to low self-disclosers at baseline and program end, but showed a greater decline in levels of dissociation at three-month follow-up. It was also found that, regardless of the level of disclosure, anxiety levels at follow-up were significantly lower than baseline levels of anxiety.

Keywords: PTSD; stress; disclosure; group therapy; anxiety

Clinicians who treat people with posttraumatic stress disorder (PTSD) recommend working through the original trauma (or traumas) in order to overcome psychological symptoms (Foa & Meadows, 1997). The therapeutic assumption in such treatments is that when people systematically work through their traumatic experience(s) by relating events and experiences and attempting to integrate them, psychological symptoms reduce in frequency and severity as the memories of the trauma are integrated and placed into a meaningful context (Bernard, Jackson, & Jones, 2006; Horowitz, 1986). However, effective clinical guidelines as to the optimal circumstances for disclosure of relevant events, such as at what stage in therapy, and whether done through graded exposure of material related to the original trauma or by “flooding” are not available and remain rather controversial. Nonetheless, published guidelines (e.g., Australian Centre for Posttraumatic Mental Health [ACPMH], 2007a) generally agree that disclosing material related to the original trauma in a therapeutic context is associated with better outcomes of treatment (see Bradley & Follingstad, 2001; Foa, Keane, & Friedman, 2000; Foa & Kozak, 1985 for reviews). For example, Keane, Fairbank, Caddell, and Zimering (1989) found that
Vietnam veterans who received exposure treatments showed better outcomes than those individuals who were assigned to a control condition.

For participants in the present study, disclosure means “opening up” and expressing both the narrative of events and the relevant emotions related to the traumatic experiences that occurred during their military services overseas or during the specific traumatic events in paramilitary life. The literature shows that the act of emotional disclosure is associated with a range of positive outcomes (see Frattaroli 2006 for a review of the literature on the effects of disclosure in experimental and non-therapeutic studies). Discussing one’s feelings about a traumatic experience is associated with lowered levels of psychological distress (Frattaroli, 2006; Lepore, Ragan, & Jones, 2000), and it can enhance self-acceptance and one’s understanding of the event (Clark, 1993). It has also been found that emotional disclosure can lead to improved physiological and psychological health (Frattaroli, 2006; Pennebaker, 2000). Exposure therapy that also encourages emotional disclosure has been found to reduce the levels of anxiety reported by people with PTSD (Rothbaum & Schwartz, 2002). From a theoretical standpoint, social-cognitive processing models of adjustment to trauma (Lepore, Silver, Wortman, & Wayment, 1996) suggest that disclosure facilitates one’s understanding of the traumatic event, thereby improving individuals’ self-perceptions (Pennebaker, Mayne, & Francis, 1997). According to Rothbaum and Schwartz (2002), repeated disclosure of traumatic events within a therapeutic environment reduces anxiety surrounding the trauma memory by increasing feelings of being in control. Disclosure of traumatic or stressful events was one of the relatively few moderators of the impact of disclosure on various outcomes in Frattaroli’s (2006) review. Research and theory thus suggest that in balance, disclosure of traumatic events is beneficial in both experimental studies with a variety of samples and in therapeutic clinical contexts (King, 2001; Lepore et al., 2000; Pennebaker et al., 1997).

Other factors may also be associated with the outcomes of treatment for PTSD. Studies have examined biographic and demographic correlates of PTSD, such as employment and marital status (Hemenover, 2003; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The review by Charuvastra and Cloitre (2008) summarizes recent research on the role of social support. The interest here is more on the psychological aspects of PTSD. In support of this view, Mueller, Moergli, and Maercker (2008) recently reported that the psychological variables of attitudes toward disclosure and the recognition by others of the trauma’s impact are more predictive of PTSD symptom severity than are demographic factors.

Many individuals with PTSD report experiencing forms of dissociation, and evidence suggests that higher levels of dissociation are positively related to more severe levels of PTSD (Ehlers & Clark, 2000; Gershuny & Thayer, 1999). The PTSD symptom of dissociation has been linked to disclosure in therapeutic relationships (e.g., Koopman et al., 2001; Lanius et al., 2002). Evidence from these studies suggests that individuals who experience dissociative symptoms shortly after disclosing traumas are at a higher risk of developing further PTSD symptoms. Although some studies suggest a link between trauma and dissociation, other studies have failed to show this association (Friedrich, Jaworski, Huxsahl, & Bengsten, 1997; Rhue, Lynn, & Sandberg, 1995), and still other studies have suggested that dissociative symptoms may inhibit the emotional disclosure of traumatic events (Kaplow, Dodge, Amaya-Jackson, & Saxe, 2005). Therefore, the literature on the relationship between
dissociation and disclosure is equivocal as to whether individuals who engage in more emotional disclosure may experience fewer dissociative symptoms or not.

This study will examine the efficacy of disclosure in therapy for reducing anxiety, along with an examination of the frequency and severity of dissociation among a sample of military veterans with PTSD. It compares participants who were high disclosers of traumatic events with those that were low disclosers in the context of a highly developed group treatment program for PTSD. It is hypothesized that the frequency and severity of dissociation will significantly decrease over time. With regards to anxiety, it is predicted that baseline levels will increase following emotional disclosure during treatment, but then decrease in the longer term.

Method

Participants and recruitment

Participants (n = 72 males) were military veterans enrolled in the PTSD Program in regional North Queensland between 2001 and 2005. This program provides group treatment for members or former members of the military using an ACPMH-accredited model. All participants were diagnosed at intake as having PTSD by a psychiatrist and also through the criteria for PTSD via administration of the Clinicians Administered PTSD Scale (CAPS; Blake et al., 1995). The CAPS is a semi-structured interview that measures the symptoms of PTSD according to the Diagnostic and Statistical Manual-Fourth Edition (DSM-IV; American Psychiatric Association, 2000). As the CAPS is a standardized interview, it maintains maximum consistency of patient cohorts across different program cohorts at the North Queensland Regional PTSD Program. Blake and colleagues (1995) found that this scale has high reliability coefficients, good internal consistency, high test–retest reliability, and substantial convergent validity. The mean total intensity CAPS score was 37.1 (SD = 9.24) at intake with a mean total frequency score of 41.8 (SD = 10.30) for the group in this study. The mean age of the participants at entry to the program was 51.0 ± 10.41 years (range 23–72 years). On average, the number of years that participants served in the military was 10.4 ± 7.81 (range 1.3–34.5 years). The participants varied widely in the extent to which they had been treated previously and what treatments they had previously taken. More detailed data were available for the medical history of 50 participants. All but six had consulted their general practitioner about some issue related to PTSD, and all but four had consulted a psychiatrist, while 19 had consulted a psychologist. The majority of these had been seen on several occasions by the mental health practitioners in the past. Fourteen had a secondary diagnosis of major depression, three had anxiety or phobic conditions, 11 had alcohol abuse or dependence, and one was diagnosed with an impulse control disorder. A total of 33 participants were no longer serving members of the army, five indicated that they were currently serving, and the remaining 34 participants did not indicate their current status of service, with no difference between disclosure groups in the proportion not reporting service status. Most (60%) were veterans of the Vietnam conflict, with 13% having served in multiple conflict zones and 19% serving specifically as peacekeepers. The remainder either did not state a conflict zone (n = 4) or served in other conflicts (n = 2). Table 1 gives the education and employment characteristics of the participants.
The North Queensland Regional PTSD Program

The North Queensland Regional PTSD Program is a nationally approved treatment intervention course. Such programs are accredited by the ACPMH (2007b) and have been shown to have roughly comparable outcomes across the different formats in which accredited programs are offered (Forbes, Lewis, Parslow, Hawthorne, & Creamer, 2008). The model used across accredited programs has also been shown to have positive outcomes over a two-year follow-up period (Creamer, Elliott, Forbes, Biddle, & Hawthorne, 2006).

This program aims to provide education and understanding of the symptoms of PTSD and on managing trauma symptoms, anger levels, alcohol and substance use, depression, anxiety, and pain. Admission to the program is based upon referral with a diagnosis of PTSD from a qualified therapist. An initial interview screens the person for the ability to participate in group work and for exclusion criteria, which include the presence of psychosis, suicidal thoughts, or severe depression. Alcohol use and moderate levels of comorbidity of other conditions are not grounds for exclusion. While members of any branch of the military may participate, the great majority are from the infantry. Members of emergency services are also eligible but very few have taken part in the program to date. Participants engage in sessions of six to eight participants that focus on self-awareness, interpersonal skills, assertiveness training, resilience, and artistic and creative pursuits. During the course of the program, participants are encouraged to disclose information about their trauma experiences through individual counseling and group therapy sessions, including specific group sessions that use exposure treatment. The program is run five times a year, with 24 days of active therapy over an eight-week period. One of the requirements for the program is complete attendance at all sessions during the course of the program, save for familial or medical emergencies. Participants attend four 90-minute group therapy sessions per active therapy day, including twelve 90-minute sessions that focus on trauma that are facilitated by two psychologists or social workers. During a trauma session, participants are encouraged and supported when disclosing their traumatic experiences. Content of the sessions is adapted to

<table>
<thead>
<tr>
<th>Highest education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>7</td>
<td>9.7</td>
</tr>
<tr>
<td>High school</td>
<td>24</td>
<td>33.3</td>
</tr>
<tr>
<td>Trade certificate</td>
<td>11</td>
<td>15.3</td>
</tr>
<tr>
<td>College certificate or degree</td>
<td>6</td>
<td>8.3</td>
</tr>
<tr>
<td>University degree</td>
<td>3</td>
<td>4.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time employed</td>
<td>9</td>
<td>12.5</td>
</tr>
<tr>
<td>Part-time employed</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Not working</td>
<td>3</td>
<td>4.2</td>
</tr>
<tr>
<td>Retired</td>
<td>11</td>
<td>15.3</td>
</tr>
<tr>
<td>Unable to work</td>
<td>48</td>
<td>66.7</td>
</tr>
</tbody>
</table>
some extent to the cohort in the group, but a strong focus on events relevant to the trauma, including specific graded exposure procedures, is standard.

All participants of the North Queensland Regional PTSD Program completed the questionnaires used in this study as an essential aspect of the program. A written consent form informed participants that the purpose of the current study was to improve trauma treatment and mental health conditions for veterans. It assured participants that the obtained information for the study would remain confidential. The hospital coordinating the PTSD program approved this research through its Human Research Ethics Committee.

**Measures**

Questionnaires, including others not reported here, were administered at intake to the program, at discharge, and at a longer term, three-month follow-up assessment. The Baseline Biographical/Demographics questionnaire identified gender, marital status, education level, employment status, and current versus non-serving members. Most of the measures used in this study are part of the standard evaluation package for ACMPH-accredited programs.

**Hospital Anxiety and Depression Scale (HADS)**

This questionnaire was developed in order to measure self-reported anxiety and depression levels. For the purposes of the current study, only the anxiety scale was used. A sample item from this scale is: “Worrying thoughts go through my mind”; responses are on a four-point scale that reflects frequency or severity, depending upon the nature of the item stem. Savard, Laberge, Gauthier, Ivers, and Bergeron (1998) reported high internal consistency for both subscales of the HADS (Cronbach alpha for both scales = .89) and high levels of test–retest reliability. The Cronbach alpha for the HADS-Anxiety subscale has been reported from .68 to .93 (mean .83; Bjellandl, Dahl, Haug, & Neckelmann, 2003). Coefficient alpha for the HADS-Anxiety scale was .78 pre-treatment, .86 post-treatment, and .84 at the three-month follow-up (Zigmond & Snaith, 1983).

**Dissociation measure**

The ACPMH designed this test by basing questions on the dissociation items included in the CAPS. The items were modified into a shortened questionnaire that was given to a sample of Vietnam veterans in order to assess the severity and frequency of reported dissociation (David Forbes, personal communication, January 15, 2008). As the dissociation measure is shorter than the CAPS, it was utilized to assess any changes in dissociative symptoms over time. Participants were asked to respond on a five-point Likert scale to both the Frequency and Severity scales, which consisted of three items each. An item from the Frequency subscale is: “How much of the time in the past month have you felt out of touch with things going on around you, like you were in a daze?” The corresponding item from the Severity scale is: “How strong was this feeling of being out of touch or in a daze?” Reliability analysis on the dissociation questions yielded a Cronbach alpha level of .90 (D. Forbes, personal communication, January 15, 2008). Reliability analysis using data collected
for the present study produced a Cronbach alpha of .87 for the intake and pre-treatment assessment.

Assessment of disclosure

For the purposes of the current study, disclosure was defined as the open expression of material related to trauma in a group therapy context. Trauma for this purpose was defined using the DSM-IV-TR criterion, which specifies that a person must witness or experience an event that involved actual or threatened death or serious injury, and that the person experienced intense fear, helplessness, or horror (American Psychiatric Association, 2000). As previously mentioned, participants were assessed at intake via the CAPS, which asks participants to describe at least one experienced traumatic event, which must qualify according to the DSM-IV-TR criteria.

Participants were assessed on the degree to which they engaged in disclosure of this same traumatic event that was reported during the CAPS assessment during each group trauma session. Group facilitators were instructed to note the disclosures of each participant on forms designed for this purpose, ranging from one (little to no disclosure of previously mentioned event) to 10 (high or even more extensive disclosure of previously mentioned event), and additional space to make comments about the client. This scale was similar to the measure used by Joinson (2001) to assess the degree to which self-disclosure revealed “vulnerable” information about the discloser. The two clinical staff present during the session independently assessed the presence or absence of clinically significant disclosure. Assessors also considered the emotional impact on the participant of their disclosure through observations of non-verbal behaviors such as hand wringing, tears, and/or tone of voice. The therapists clearly made more individualistic use of the more detailed ratings of the extent of disclosure, or in some cases, did not make a detailed rating, but did make a binary rating of the presence or absence of disclosure. Differences of opinion as to whether the participant was merely “expressing feelings” or “disclosing emotions” were one source of disagreement in the session ratings. Then at each weekly team meeting, these forms were re-assessed first in terms of whether each client’s disclosure included an adequate description of the traumatic experience as assessed by their individual CAPS report. Based on the consensus over the weekly assessments by clinical staff, a summary dichotomous variable was created categorizing participants as high disclosers when they discussed their traumatic experience at great length, or as low disclosers if they rarely disclosed or did not discuss their traumatic experiences. Evidence was that the measure gave an inter-rater reliability of .85 with data not reported here on the judgment of whether or not the person disclosed in a therapeutically meaningful way. The binary variable appeared to capture the essence of disclosure better than the more detailed ratings, which proved to have moderately high levels of missing data or inappropriate ratings.

Procedure

To determine which participants would enter the program, the PTSD initial interview and assessment process occurred approximately one month prior to commencement of the next group. This assessment process involved having a session with the
program’s psychiatrist to determine whether participants met the criteria for PTSD. Participants were also administered the CAPS to further determine their suitability for the program. Once the suitability of participants was assessed, participants were informed that they were scheduled for the next program. On the first day of the program, participants received an information sheet for the intake questionnaire. After giving informed consent, participants were asked to answer the intake questionnaire as honestly as possible and the investigator answered queries as required. The intake questionnaire consisted of demographic/baseline questions, the HADS, and the dissociation measure described above, among others. Questionnaires were similarly administered at discharge, and again three months after the program conclusion. Following completion of the program, participants were advised of debriefing processes and were offered an explanation of the study.

**Data analysis**

SPSS (v. 11) and SYSTAT 12 were used to conduct a mixed analysis of variance (ANOVA) and several non-parametric tests. Mann–Whitney U tests were calculated to investigate possible relationships between disclosure and several demographic/biographic variables. ANOVAs were employed to determine whether anxiety levels and dissociation scores were significantly different for high versus low disclosers over time (intake, discharge, and three-month follow-up). Any missing data were handled through substitution of the group mean for that variable.

**Results**

Fifty-one participants (70.8%) were classed as high disclosers by the treatment team. In preliminary analysis, non-parametric tests were conducted between high and low disclosure groups on the demographic and biographic variables of age, gender, education level, employment status, and current versus non-serving members. No significant differences were found for the demographic and biographic variables analyzed, but education came closest to being significant ($z = -1.89, p = .06$). There were no complete dropouts from the program, but five people did not complete the HADS post-treatment, and 23 did not do so at follow-up. The dissociation measure was not completed by 22 people post-treatment and by 24 at three-month follow-up.

Table 2 reports the correlations among the CAPS Intensity and Frequency total scores, HADS Anxiety, and the measures of dissociation frequency and severity measures. Table 3 reports the means and standard deviations for the high and low disclosure groups on the dissociation and anxiety measures over the three points in time.

A $3 \times 2$ mixed ANOVA was conducted to determine whether the high disclosure and low disclosure groups differed over time (intake, discharge, and three-month follow-up) on reported frequency scores for dissociation. Box’s M, Levene’s test, and Mauchly’s Test of Sphericity were not significant ($p > .05$ for all), suggesting that the underlying statistical assumptions were met. The main effect for time ($F_{(2,140)} = 7.0, p < .001, f = .24$) and the main effect for disclosure ($F_{(1,70)} = 12.6, p < .001, Cohen’s d = .82$) were both significant for the frequency of dissociation measure. The effect for time is classed by Cohen (1988) as medium in size, while the difference between groups was a large effect. Table 3 and Figure 1 display the significant interaction
The interaction involved the higher level of dissociative experience in the high disclosure group at discharge contrasted with the lowest score in the low disclosure group, which was at follow-up. Overall intake and discharge means did not differ (difference = .2, ns), but the three-month follow-up was lower than both the intake (difference = 1.1, \( p < .004 \)) and discharge (difference = 1.3, \( p < .002 \)) assessments.

Next, a 3 × 2 mixed ANOVA was conducted to investigate if the severity of dissociation changed over time (intake, discharge, and three-month follow-up) for high versus low disclosers. Box’s M, Levene’s test, and Mauchly’s Test of Sphericity again were not significant (\( p > .05 \)), indicating that the statistical assumptions of the ANOVA had been met. The main effect for time was significant (\( F(2,140) = 7.4, p < .05 \), Cohen’s \( d = .34 \)). A significant main effect was also found for the severity or intensity of dissociation (\( F(1,70) = 18.2, p < .001 \), Cohen’s \( d = .98 \)). The effect size for the group difference is large using Cohen’s criteria, while the effect for time is a medium to large size effect. Table 3 shows the non-significant interaction effect of time and disclosure for severity of dissociation, (\( F(2,140) = 2.9, p = .058 \)).

Effect size for the group difference is large using Cohen’s criteria, while the effect for time is a medium to large size effect. Table 3 shows the non-significant interaction effect of time and disclosure for severity of dissociation, (\( F(2,140) = 2.9, p = .058 \)).

Intake scores were higher than at the three-month follow-up (difference = 1.0, \( p < .001 \)), which were also lower than those at discharge (difference = 1.3, \( p < .002 \)). Discharge and follow-up scores did not differ for the severity of dissociation.

Table 3. Treatment progress in experience and severity of dissociation and anxiety over six months for high and low disclosure groups.

<table>
<thead>
<tr>
<th>Group and measure</th>
<th>Intake</th>
<th>Discharge</th>
<th>Three-month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>High disclosure, Frequency</td>
<td>5.4, 2.75</td>
<td>5.9, 2.86</td>
<td>4.2, 2.20</td>
</tr>
<tr>
<td>Low disclosure, Frequency</td>
<td>3.6, 2.06</td>
<td>3.2, 2.29</td>
<td>2.9, 2.16</td>
</tr>
<tr>
<td>High disclosure, Severity</td>
<td>5.6, 2.60</td>
<td>5.7, 2.34</td>
<td>4.7, 2.16</td>
</tr>
<tr>
<td>Low disclosure, Severity</td>
<td>3.9, 2.09</td>
<td>2.8, 2.01</td>
<td>2.8, 1.92</td>
</tr>
<tr>
<td>High disclosure, HADS</td>
<td>15.2, 3.07</td>
<td>12.0, 4.00</td>
<td>11.6, 4.28</td>
</tr>
<tr>
<td>Low disclosure, HADS</td>
<td>13.2, 4.00</td>
<td>11.4, 4.01</td>
<td>11.2, 4.26</td>
</tr>
</tbody>
</table>

Note: Frequency refers to frequency of dissociation; severity refers to severity or intensity of dissociation; HADS, Hospital Anxiety and Depression Scale.
A 3 × 2 mixed ANOVA was then conducted to determine whether the high disclosure and low disclosure groups differed over time (intake, discharge, and three-month follow-up) on reported anxiety as measured by the HADS. A significant main effect was found for time, \( F(2,96) = 13.6, p < .001, \) Cohen’s \( f = .58 \), however, there was no significant interaction effect or main effect for disclosure. Relevant figures are reported in Table 3. Regardless of the level of disclosure, participants reported significantly higher anxiety scores at intake (\( M = 14.5 \)) compared to at discharge (\( M = 11.8 \)) and the three-month follow-up (\( M = 11.5 \)).

**Discussion**

The primary aim of the present study was to explore the association among disclosure and dissociation, and anxiety among PTSD patients undertaking an outpatient therapeutic program. Results showed that these factors were correlated with one another, with the dissociation measures having lower correlations with CAPS measures than with anxiety. In this study, the frequency of dissociation scores decreased significantly from intake to discharge, and to longer-term follow-up among both high and low disclosers, with high disclosers experiencing significantly higher frequency and severity of dissociation scores when compared to low disclosers at discharge from the program. The lower frequency and severity of dissociation at the three-month follow-up period suggests a delayed treatment effect among those who more frequently disclosed aspects of the traumatic event during treatment (Wilkeson, Lambert, & Petty, 2000). This point warrants replication in other PTSD research centers.

Previous studies have examined whether dissociation is related to trauma and long-term psychological outcomes (e.g., Ehlers & Clark, 2000; Gershuny & Thayer, 1999; Koopman et al., 2001; Lanius et al., 2002). The present study expanded upon
this research by examining whether disclosure influenced reported dissociation. As mentioned earlier, both the frequency and severity of dissociation remained fairly stable over a three-month period if individuals with PTSD self-disclosed little information about their trauma in a group setting. Such a finding seems to contradict the work of others who claim that self-disclosure results in more negative symptomatology (Kelly, 1998, 2000; Major et al., 1990). One notable finding from the current study was that disclosure appeared to serve beneficial outcomes in terms of dissociative symptoms, but only in the long term. In accordance with previous research (Foà & Kozak, 1985), it is possible that only when participants had time to reflect upon what they had disclosed and what they had learnt throughout the course were positive therapeutic effects evident.

The present study also aimed to compare anxiety levels among high disclosers and low disclosers over time. It was predicted that baseline levels of anxiety would increase following emotional disclosure, but then decrease in the longer term. The only significant finding yielded from this test was a main effect for time, which suggested that anxiety levels changed significantly over time regardless of whether participants were high or low disclosers. Differential disclosure of trauma material did not result in a significant reduction of anxiety reported by participants with PTSD; all participants in the program showed a reduction in anxiety.

The present study had several limitations in terms of design and the participant population. One limitation to this study is that no measure was taken as to whether participants wanted to disclose or not. Generally, individuals that want to express information surrounding their traumas are more likely to reap the benefits of disclosure than people who are reluctant to do so (Labott & Teleha, 1996). It appeared as though the chosen measure of disclosure (a dichotomous variable of high versus low disclosers) used in this study was not sufficiently sensitive to detect intermediate levels of disclosure that may have still been important. Future studies on this topic may benefit from measuring both the number of times the participants disclosed during the treatment program and the level of trauma disclosure in order to quantify disclosure more completely. This will not be easy, as many veterans appear to have reservations about disclosing trauma, and may drop out of treatment approaches that focus strongly upon the original trauma (Schnurr et al., 2003). In addition, a high proportion of veterans are reported not to realize that they have PTSD (Leibowitz, Jeffrey, Copeland, & Noël, 2008). Missing information for some variables, such as the high proportion not reporting current service status, did not permit a full investigation of some factors, such as the recency and severity of the initial trauma. Indeed, in some ways the number of individuals who did not disclose their service status could be regarded as another measure of disclosure. Additionally, the consequence of completing these questionnaires was not assessed. It may be that completing the questionnaires influenced the awareness of participants to certain aspects of their condition that they had not previously considered. Perhaps, future studies could use a wait-list design to separate the effects of verbal emotional disclosure from the effects of completing the questionnaire. As a result of the sample being one of military veterans, findings may not generalize to other populations, such as victims of violent crime.

The present findings support the view that therapeutic interventions for PTSD patients that encourage participants to disclose information about their traumas is related to improved symptoms. To an extent, this is not a surprising finding as the
positive outcomes following disclosure are an expected result among the majority of psychotherapeutic interventions. At the same time, there is also evidence that group treatments that focus on trauma may not have better outcomes than treatment that does not focus on trauma (Schnurr et al., 2003). Future studies may use these findings to develop more testable hypotheses such as: does dissociation improve more than anxiety over time as a result of encouraged disclosure of traumatic events? Is reduced dissociation, in comparison to reduced anxiety, more predictive of improved outcomes?

If replicated, these results may further resolve any concerns about disclosure as an effective therapy. High levels of disclosure may lead to high levels of dissociation in the short term. However, in the long term, high levels of disclosure leads to reduced dissociation and better treatment outcomes.

References


