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Group Cognitive Behavioral Treatment for PTSD: Treatment of Motor Vehicle Accident Survivors

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Abstract

Individual cognitive behavioral therapies (CBT) are now considered the first-line treatment for posttraumatic stress disorder (PTSD; Foa, Keane, & Friedman, 2000). As mental health reimbursement becomes more restricted, it is imperative that we adapt individual-format therapies for use in a small group format. Group therapies have a number of advantages, including provision of a natural support group, the ability to reach more patients, and greater cost efficiency. In this article, we describe the development of a group CBT for PTSD in the aftermath of a serious motor vehicle accident (MVA). Issues unique to the group treatment format are discussed, along with special considerations such as strategies to reduce the potential for triggering reexperiencing symptoms during group sessions. A case example is presented, along with discussion of group process issues. Although still in the early stages, this group CBT may offer promise as an effective treatment of MVA-related PTSD.

A RELATIVELY COMMON traumatic event that can produce strong psychological responses is a serious motor vehicle accident (MVA; Blanchard & Hickling, 2004). As noted by Norris (1992), MVAs are among the leading cause of posttraumatic stress disorder (PTSD) in the general population. Based on current diagnostic practices (American Psychiatric Association, 2000), PTSD is an anxiety disorder that originates with the occurrence of a traumatic event involving actual or threatened death, serious injury, or threat to the physical integrity of oneself or others. Characteristic symptoms involve reexperiencing trauma-related cues (e.g., intrusive thoughts about the accident), persistent avoidance of thoughts or situations associated with the accident (e.g., inability to drive), numbing of emotional responsiveness (e.g., greatly reduced or absence of emotions), and increased physical arousal (e.g., exaggerated startle). Depending on the methodology employed, estimates of the prevalence of PTSD following an MVA range from 1% (Breslau, Davis, Andreski, & Peterson, 1991) to 39% (Blanchard, Hickling, Taylor, & Loos, 1995), with higher rates found in studies that assessed help-seeking samples and lower rates found in more general epidemiological surveys. Thus, a conservative estimate suggests that MVA-related PTSD may affect 2.5 to 7 million people in the United States, reflecting a significant mental health problem (Blanchard & Hickling, 2004).

In addition to PTSD, a number of other psychological problems often are present after an MVA. Mood disturbances are particularly common, with one report indicating that 53% of patients with PTSD have concurrent mood disorders (Blanchard, Hickling, Taylor, et al., 1995). Additional anxiety disorders also can occur, with rates ranging from 7% to 31%, depending

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on gender and the specific disorder in question (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). As well, substance use and abuse is relatively common in the aftermath of a serious MVA (Blanchard & Hickling, 2004), much as it is with other forms of trauma exposure (Kessler et al., 1995). For individuals who were physically injured during an MVA, chronic pain may be an important comorbid condition (e.g., Geisser, Roth, Bachman, & Eckert, 1996). There are data to suggest that these additional psychological problems can affect patients' responses to some forms of psychological treatment (Blanchard, Hickling, Malta, et al., 2003).

Thus, following a serious MVA, an individual is at increased risk for PTSD, as well as a host of additional psychological problems. In this article, we discuss the development of a group format treatment for MVA-related PTSD with preliminary support and a case example to illustrate this intervention.

Treatment for MVA-Related PTSD—Cognitive Behavior Therapy

The empirical literature on treatment of PTSD has evolved rapidly in the past 2 decades. As summarized by Foa, Keane, and Friedman (2000), numerous treatments are available for posttrauma problems. At present, strong support exists for cognitive behavioral therapy (CBT). As reviewed by Rothbaum, Meadows, Resick, and Foy (2000), a collection of interventions have been evaluated within this literature, including exposure therapy, systematic desensitization, stress inoculation training, cognitive processing therapy, cognitive therapy, relaxation training, and package treatments that include a combination of these interventions. Based on the number and quality of extant studies, the strongest support exists for exposure therapy (Foa, Davidson, & Frances, 1999). Exposure therapy involves techniques designed to expose the individual to anxiety-provoking stimuli and can be conducted imaginally or in vivo. Exposure is believed to effect change via habituation of anxiety and typically includes practice during treatment sessions (to facilitate within-session anxiety reduction) as well as practice outside of treatment (to facilitate between-session habituation). Exposure can be structured to occur gradually (according to a hierarchy) or rapidly, and typically is conducted in conjunction with other interventions, such as psychoeducation about PTSD or relaxation. As will be reviewed next, treatment programs for MVA-related PTSD have included a range of interventions in addition to exposure.

To date, these findings have been used to inform treatments for MVA-related PTSD. As summarized by Blanchard and Hickling (2004), a number of treatment studies have been published, using both uncontrolled and controlled research designs. Fecteau and Nicki (1999) reported the first controlled treatment trial with MVA survivors diagnosed with PTSD. Treatment included four individual CBT sessions involving psychoeducation, relaxation training, imaginal and in-vivo exposure, and cognitive interventions. Relative to individuals in an assessment-only condition, individuals who received treatment showed significant improvement on clinician and self-reported PTSD symptoms. Four of the 10 individuals who received CBT were free of PTSD diagnoses after treatment. Thus, even with a relative short individual-format treatment, CBT appeared effective for reducing the symptoms of MVA-related PTSD.

Building on these results, Blanchard and colleagues expanded and refined a CBT program using an individual treatment format. In an initial uncontrolled case report (Hickling & Blanchard, 1997), MVA survivors with PTSD symptoms were treated with 9 to 12 sessions of CBT, composed of psychoeducation, imaginal and in-vivo exposure, relaxation training, cognitive restructuring, discussion of existential issues and social support, and pleasant events scheduling. The latter interventions were included to address the host of potential other difficulties that can accompany MVA-related PTSD. Of the eight patients who received an initial diagnosis of PTSD, five did not satisfy diagnostic criteria at the posttreatment

assessment. By the 3-month follow-up, two of the remaining three patients were free of PTSD diagnoses. Scores on self-report measures of PTSD symptoms, anxiety, and depression also were found to improve significantly after treatment.

Based on these encouraging results, Blanchard and colleagues recently completed a randomized controlled trial, comparing CBT with supportive psychotherapy (both conducted in an individual treatment format) and a wait-list control condition (Blanchard, Hickling, Devineni, et al., 2003). Seventy-eight survivors who were at least 6 months past their MVA completed treatment. Of this sample, 81% ($n = 63$) met diagnostic criteria for PTSD and the remainder had severely symptomatic subsyndromal forms of the disorder (see Blanchard & Hickling, 2004, for greater discussion of the utility of including these individuals). Individuals receiving CBT showed significantly greater reduction in clinician-rated PTSD severity relative to those in the supportive psychotherapy condition who, in turn, showed significantly greater reductions than those in the wait-list condition. Of those with diagnosable PTSD at pretreatment who received CBT, 71% no longer met diagnostic criteria at posttreatment, compared to 48% of those treated by supportive therapy and 24% of individuals in the wait-list condition. Additionally, CBT led to greater reductions in comorbid depression and generalized anxiety disorder, relative to the other two conditions. Data from 3-month follow-up indicated that these results were stable. Thus, CBT appears to be an effective treatment for MVA-related PTSD, based on the available literature.

As positive as the development of individual format CBT has been in reaching the needs of individuals with PTSD after a serious MVA, some authors have suggested that individual-format therapies are not the most cost-effective forms of treatment (e.g., Miller & Magruder, 1999). In contrast to individual therapy, group-based treatments offer the possibility to reach considerably more patients, to reduce the workload on any given therapist, and to cost less. An additional advantage to developing a group-format CBT for PTSD is the possibility to teach more therapists how to use exposure therapy. Surveys suggest that many therapists do not use exposure-based techniques to treat PTSD, either because they have not received training in these approaches or because they are fearful of asking patients to perform activities that initially may increase their anxiety (Becker, Zayfert, & Anderson, 2004; Foy et al., 1996). A manualized group-format CBT has the potential to serve as a cost-effective training vehicle, with a more experienced therapist demonstrating how to introduce exposure therapy as well as modeling approaches for managing patients' anxiety for a less experienced cotherapist. A group format, with its higher client-to-therapist ratio, is a more cost-effective training vehicle than co-led individual therapy.

However, adapting individual-format therapies to be suitable for a group format is not a clear-cut task. As discussed by Resick and others (Hickling & Blanchard, 1999; Resick & Schnicke, 1993), group-based treatment of PTSD needs to be carefully constructed. For example, many patients with MVA-related PTSD arrive for treatment in a heightened state of anxiety, owing to the need to drive (or ride in a car) to therapy. Sometimes this also includes individuals who are irritable and angry after observing a driver whom they perceive as dangerous on the way to therapy. Thus, management of the therapeutic environment within the group is salient. As well, discussion of specific details about a given individual's MVA has the potential to heighten other group members' feelings of anxiety, especially if similarities exist between individuals' accidents (Fedoroff, Taylor, & Koch, 1999). Thus, management of the group includes setting norms for how information about each person's wreck is shared and what information does not need to be discussed with other group members. It also is necessary to adapt exposure exercises for the group environment. For example, within individual-format CBT, the patient reads aloud a description of his or her MVA. This procedure has a high likelihood of creating distress among other group members and potentially triggering reexperiencing symptoms. Exposure exercises are modified within this group approach, with the majority of exposure occurring

during the patient's homework outside of session. Although this modification has the potential to dilute this important aspect of treatment, it is required by the group format. Adaptations such as this shift away from within-session habituation of anxiety to between-session habituation will be discussed in detail in the next section.

To date, only one published case report of group-based CBT for MVA-related PTSD has appeared (Taylor et al., 2001). The aim of this report was to identify patterns of response to treatment (e.g., full positive response, partial response, etc.) and, as such, discussion of the treatment program was deemphasized. Treatment consisted of 12 sessions, each lasting 2 hours, and was conducted in groups of 4 to 6 patients diagnosed with PTSD following a serious MVA. Interventions included within the treatment program were psychoeducation (Session 1), cognitive restructuring (Sessions 2 to 4), applied relaxation (Sessions 5 to 12), imaginal exposure (Sessions 5 to 8), and in-vivo exposure (Sessions 8 to 12). Eight patients dropped out of treatment (14% of the total) and 50 completed at least 8 sessions. At the end of treatment, 18 of these 50 no longer met criteria for PTSD (36%). It is difficult to ascertain if the CBT employed in this report was adapted in any way for use within a group format, but it is clear that the outcome obtained by this program is considerably less positive than that reported by Blanchard, Hickling, Devineni, et al. (2003). Thus, although the results of Taylor et al. (2001) suggest that group CBT can be helpful in alleviating MVA-related PTSD, it would appear that continued work in adapting this program for use in a group treatment setting is warranted.

In the next section, a group CBT program will be outlined. This program is based on the best available evidence from the individual therapy literature and, as such, involves a treatment with multiple intervention components. A case example will be provided, in this instance a group of women with MVA-related PTSD. At present, this treatment should be considered experimental and warrants further testing to determine its efficacy.

Developing a Group CBT Program for MVA-Related PTSD—Special Considerations

As mentioned previously, a number of modifications appeared necessary in adapting CBT for a group format. Included among these changes are careful selection of interventions, inclusion of features that are designed to maximize group cohesion, modifications that are designed to consider the role of chronic pain among this population of trauma survivors, adapting interventions so as to reduce the likelihood of triggering reexperiencing symptoms among group members, and inclusion of strategies for handling driving-related anxiety during the treatment session. These issues will be discussed next.

Selection of interventions. The group CBT program described here is modeled after the individual format CBT of Blanchard and Hickling (2004). The individual treatment is administered in 10 sessions, each lasting 50 to 75 minutes. The elements of individual treatment are shown in Table 1 and described in considerable detail elsewhere (Blanchard & Hickling, 2004). As can be seen, exposure plays a central role in this approach and includes imaginal and in-vivo exposure, as well as asking the patient to revisit their MVA via a writing exercise. Exposure is complemented by cognitive interventions and progressive muscle relaxation, as well as interventions designed to address existential concerns, to increase social contact, and to diminish anger. As discussed by Blanchard and Hickling, this program can be tailored to the individual patient's needs, particularly the latter sessions. For example, for patients who are experiencing considerable distress because of upsetting thoughts, such as, "I could have died," the manual encourages exploration of existential issues. Likewise, if a patient reports notable anger as a component of their PTSD symptomatology, the therapist introduces cognitive anger management (Ellis, 1977). These treatment components are only introduced

if they appear to be appropriate to the individual patient's symptom profile. Clearly, within the context of a group treatment approach, this level of individual tailoring is not possible. Rather, interventions need to be selected for inclusion that have the largest potential for impact and that reflect the greatest clinical needs of this population.

Group cohesion. An additional consideration in developing a group CBT is to include features that will maximize the potential for building group cohesion and increasing social support among group members. Although a thorough review is outside the scope of this article, related research has suggested the importance of group cohesion to outcome (e.g., Taft, Murphy, King, Musser, & DeDeyn, 2003). Thus, a clear strength of any group treatment for PTSD is the ability to pull together a collection of individuals who (by diagnosis alone) are likely to be isolated and emotionally numb (Foy et al., 2000). Historically, group therapy programs for PTSD involved “rap groups” and other self-help groups (e.g., Shatan, 1973), presumably based on the notion of facilitating trauma recovery through provision of support from individuals who had experienced the same type of trauma. In designing this group program for MVA-related PTSD, several features were included to maximize the development of a supportive group environment: (a) slower pacing of interventions to allow time for an adequate discussion of individuals' practice with specific techniques; (b) emphasis on group-building during the initial sessions of the program and encouragement of a supportive atmosphere throughout treatment; (c) introduction of exposure therapy in a fashion that promotes individual understanding of the principles, rather than exclusive focus on specific exposure exercises; and (d) inclusion of two therapists, in order to manage the therapeutic environment within the group.

Pain. An additional concern in developing a group CBT is potential physical obstacles. Many MVA survivors struggle with chronic pain complaints, owing to physical injuries received during their accident (e.g., Blanchard, Hickling, Devineni, et al., 1995). It is common for some of these patients to be unable to sit for a prolonged interval, to walk very far, to lift, or to carry objects. Additionally, pain complaints often result in lifestyle changes, including permanent disability from employment. These physical changes compound the individual's distress and their perception of the “horribleness” of the accident. Negative methods of coping with pain also have been shown to be associated with additional emotional problems, such as depression and anger (J. G. Beck, Gudmundsdottir, & Shipherd, 2003). Many times, the patient equates chronic pain complaints with posttrauma symptomatology, which makes sense given the common origin of both problems. Although these pain complaints are an understandable aspect of post-MVA functioning, they can cloud and complicate the clinical presentation of PTSD. The initial phases of group are designed to focus the person's attention on identifying PTSD symptomatology. Sometimes, it is necessary to explicitly spell out the difference between PTSD and pain symptomatology, especially if pain-related discussion seems to be deterring the group from working productively on PTSD-related issues. Although conceptual models emphasize the synergistic interplay between pain and PTSD (Sharp & Harvey, 2001), it is important for patients to distinguish between those symptoms that are attributable to pain (such as back pain that prevents an individual from driving long distances on an interstate highway) and those that are attributable to PTSD (such as fear of driving on an interstate highway due to exposure to posttrauma triggers such as semi-truck traffic) in order to appropriately use the skills that are included within this group CBT program.

Pain also needs to be considered in other ways. Patients may have trouble sitting for the duration of group or may require special back or neck supports to reduce their discomfort. In manualizing the group CBT program, specific adaptations are made to some interventions to accommodate pain complaints (e.g., progressive muscle relaxation training). In addition, discussion of group members' comfort occurs during the first group, with particular attention to individual needs. Rather than viewing pain complaints as a “nuisance,” the group treatment manual has been adapted in ways to recognize this facet of post-MVA functioning, in an effort

to help participants recognize the difference between physical pain complaints and emotional difficulties stemming from their MVA. Although some authors have speculated that pain may interfere with patients' abilities to engage in and benefit from CBT (e.g., Koch & Taylor, 1995), data from our investigative team suggest that individuals with comorbid PTSD and pain complaints can benefit markedly from this treatment (Shipherd, Beck, Hamblen, Lack-ner, & Freeman, 2003). In this multiple-baseline report, patients who received individual format CBT showed substantial reductions in PTSD symptoms, disability from pain, and associated anxiety and depressive symptoms, suggesting that this treatment approach appears to generalize to a panoply of problems that are common among MVA survivors.

Revisiting the MVA. Another salient issue that arises in developing a group-based treatment for this population is how to conduct exposure-based interventions that revisit the MVA. In the original individual format treatment, as the initial step in exposure therapy the patient is asked to read aloud a written description of their MVA during session. If this procedure is attempted within a group setting, it has the potential of triggering reexperiencing symptoms among other participants. Although some forms of group CBT are expressly designed to focus on trauma reprocessing via repeated exposure to each individual's trauma narrative (e.g., trauma focus group therapy; Foy et al., 2001), these treatments typically involve 30 or more sessions, with exposure introduced midway through this process. Presumably, this longer time course includes greater development of a positive group atmosphere and lower likelihood for negative outcomes from members sharing specific details of their traumatic experience. The group CBT program described here was targeted to be much shorter in duration and to focus more directly on the development of adaptive coping skills in the context of imaginal and in-vivo exposure. As such, modification of methods for using MVA descriptions during exposure was necessary. In particular, within the group format, patients write out their MVA descriptions during a treatment session. In order to ensure that the description taps salient emotional dimensions of the patient's experience, one of the therapists reads the description and provides the patient with written feedback.¹ Then the patient is asked to read the description aloud at home. Group members are taught the basic principles involved in exposure, with careful discussion of the anticipated habituation curve for their subjective units of distress (SUDS) ratings. Emphasis is placed on providing a clear rationale for reading the MVA description aloud at home as a form of imaginal exposure. In this as well as other exposure-based homework, the necessity for continuing exposure until at least a 50% reduction in SUDS has occurred is emphasized. Although writing out their MVA experience during session can be difficult for group members, this intervention is followed by practice with relaxation training to ensure that participants' distress is reduced prior to the end of session. This modification places a greater burden on the patient, relative to an individual-format treatment, as most of the important exposure work is conducted as homework.

Anxiety during the treatment session. A final factor considered in the development of the group CBT program addresses the potential for group members to arrive for treatment in a heightened state of anxiety. Because profound fear (and avoidance) of driving is an essential part of the diagnosis of MVA-related PTSD, driving to treatment can result in highly agitated group members, who may spend the first part of the session being too anxious to concentrate. Given this concern, we incorporated a brief training in mindfulness meditation (e.g., Kabat-Zinn, 1990) in order to give participants a skill to help them focus during treatment sessions. At the beginning of each session, one of the therapists leads the group in a mindfulness exercise. The goal of this exercise is to reduce acute distress by directing one's attention to an event that is

¹In particular, the therapist provides feedback about whether the MVA description is too long and contains too much distracting information or provides a purely factual account with neglect of the key emotions such as fear, helplessness, and horror, or focuses on associated features of the MVA that are not central to PTSD (such as being treated poorly by the police, having one's clothes cut off by emergency medical technicians, etc.).

occurring in the present (breathing), rather than attending to thoughts about past events (e.g., driving to the clinic for treatment). Additionally, group members are instructed to practice daily mindfulness exercises and to be present-minded rather than future- or past-minded to reduce the general distress associated with PTSD symptoms. Since group members often describe future- and past-minded driving (i.e., thinking about their MVA while driving or focusing on some particularly distressing aspect of an upcoming trip), mindfulness also is used to improve group members' focus when they are in a car. That is, group members are encouraged to stay present-minded while driving rather than focusing on the past MVA or what is around the next corner. As suggested by Becker and Zayfert (2001), mindfulness may facilitate other elements of CBT.

Treatment Overview

To better illustrate the group CBT for MVA-related PTSD, an overview of the sessions will be provided. As is typical of most forms of CBT, weekly homework is assigned. As noted, many parallels exist between this program and the individual format of treatment, although areas of difference are present as well. Session 1 is primarily an introductory session. In this session, group members are introduced to one another, the treatment guidelines, confidentiality, and the CBT format. During Session 2, group members learn more about PTSD, especially avoidance, and begin to construct an MVA fear hierarchy that will be used during imaginal and in-vivo exposure. During Session 4, group members write a description of their MVA during session. This aspect of treatment was modified from Cognitive Processing Therapy (Resick & Schnicke, 1993). Sixteen-muscle group progressive muscle relaxation is introduced at the end of the session to reduce distress. Session 5 is an extension of Session 4 in that the group members read their MVA descriptions silently until their distress drops by at least 50%. Cognitive therapy for PTSD is introduced in Session 6 and discussed further in Sessions 7, 8, and 9. Sessions 9 and 10 focus on anger, while Session 11 focuses on participants' feelings of depression. Following a discussion of the role that social support can play in recovery from PTSD in Session 12, group members are asked to find pleasant events that they could engage in with a supportive other. Session 13 focuses on the risk of relapse in PTSD, with presentation of relapse-prevention skills. Session 14 serves as a general review of the previous sessions, a review of treatment gains made by each group member, and suggested individualized strategies for each group member to maintain and build upon treatment gains. The session-by-session outline for group CBT is shown in Table 2.

Case Example

One way of illustrating this group CBT program is to present data from one of the groups that was involved in our research clinic. This group included five women, each of whom had been involved in a serious MVA. At present, 74% of individuals who qualify for treatment in our clinic are women. This figure is consistent with a recent meta-analysis that indicated that females consistently are found to be at greater risk for developing PTSD in the months immediately following a civilian trauma than are men (Brewin, Andrews, & Valentine, 2000). Additionally, several studies have indicated that females are four times more likely than males to maintain PTSD for at least 1 year after their trauma (Breslau et al., 1991; Breslau & Davis, 1992). Thus, it is common for our CBT groups to contain most or all women, although they are designed to be appropriate for men as well. Group members included Betsy, Margie, Francis, Sallie, and Paula.² During the initial individual assessment, each member described her MVA and rated her perceptions of fear, helplessness, horror, and feelings that she might die during the wreck, using 0-to-100 ratings. In order to qualify for treatment, individuals needed to provide ratings at or above 50 on fear or helplessness and a rating at or above 50 on

²Names and identifying information of these patients have been changed to protect their confidentiality.

perceptions of danger or that they might die. Brief descriptions of each individual and their MVA are provided next.

Group Members

Betsy was a 33-year-old married mother of three. She was employed part-time as a physician with a treatment facility serving the severely mentally ill. Betsy's accident had occurred approximately 2 years prior to treatment. She had been traveling home from a social event in the early evening with her two young sons when she was hit head-on by an oncoming vehicle. Her car was pushed off the road and into a gully. The driver of the other car was an elderly man who was intoxicated and fell asleep behind the wheel. Betsy and her sons were trapped in their car for some time after the wreck. She was not physically injured in the MVA. She had no previous experiences that would meet Criterion A for PTSD. At the beginning of treatment, she did not report pain complaints, although as group progressed, she experienced a moderate level of back pain.

Margie was a 40-year-old single woman who was employed as an outside sales person. Her MVA had occurred approximately 10 months before entering treatment. She had been traveling on a local expressway when an oncoming car crossed the median and hit her car head-on. The other driver fled the scene and was never apprehended. Although Margie's car was totally destroyed and she had sustained some injuries in the wreck, she was not reporting pain complaints when she presented at the MVA Clinic. Her only prior trauma experience involved witnessing the house next-door burn down when she was a child; this experience had not left her with any emotional problems.

Francis was a 56-year-old, divorced woman who was not employed. Her accident had occurred approximately 2½ years prior to treatment. Francis had been stopped at an intersection for a red light. An 18-wheel truck, which was transporting a bulldozer, turned onto the street where Francis's car was sitting. As the truck turned the corner, the chains holding the bulldozer onto the truck bed broke and the bulldozer slid off, crushing Francis's car. Francis was diagnosed with four herniated disks in her neck, as well as extensive soft tissue injuries in her torso and arms. As a result of these injuries, Francis reported chronic pain, walked using a cane, and was receiving disability payments. Francis was a Vietnam-era veteran who had served in active combat as a nurse. In this context, she had experienced numerous traumatic events. As well, she had experienced a sexual trauma in her early 20s. Initial assessment indicated a mild level of posttrauma symptoms from these previous events. Francis lived an hour away from the research clinic and relied on the bus for transportation.

Sallie was a 46-year-old married mother of two children who was unemployed. Her MVA occurred 8 months prior to treatment. She was driving to work on the express-way when she was side-swiped by a flat-bed truck. The bumper of the truck caught on Sallie's car and dragged it for approximately half a mile. Sallie sustained whiplash and soft-tissue damage and reported constant pain in her shoulders and neck. She was in the midst of applying for disability while she was enrolled in the group CBT. She reported that her husband currently was verbally abusive to her but denied physical abuse within her marriage.

Lastly, Paula was a 30-year-old single woman who was unemployed. Prior to her MVA, she had herniated two disks in her back while employed at a nursing home. Her accident occurred 1 year prior to entering the treatment program. Paula had been stopped at a red light when she was rear-ended by a car that was traveling approximately 40 mph. As a result of the MVA, she suffered another herniated disk and knee problems resulting from cartilage damage. She reported chronic pain problems from these injuries, as well as the previous ones. She had previously been treated for PTSD stemming from childhood sexual abuse at age 12 and denied current posttrauma symptoms from this experience.

Assessment. Prior to beginning group CBT, each patient was assessed individually. This assessment included the Clinician-Administered PTSD Scale (CAPS; Blake et al., 1990) and the Anxiety Disorders Interview Schedule (DiNardo, Brown, & Barlow, 1994). The CAPS includes standardized questions to determine symptom frequency and intensity of PTSD. The total severity score for the CAPS (CAPS-Total) is computed by summing the frequency and intensity ratings for each symptom (range: 0 to 136).³ The ADIS-IV was used to assess other Axis I pathology. Interviewers were trained with methods described by DiNardo, Moras, Barlow, Rapee, and Brown (1993). Adequate diagnostic reliability was noted for both interviews.

Participants completed two self-report scales: the Impact of Event Scale–Revised (IES-R; Weiss & Marmar, 1997) and the PTSD Symptom Scale–Self-Report (PSS-SR; Foa, Riggs, Dancu, & Rothbaum, 1993). The IES-R contains 22 items that are distributed across three subscales that assess intrusion, avoidance, and hyperarousal symptoms of PTSD. The PSS-SR contains 17 items, reflecting the symptoms of PTSD, which are summed to yield a total score. Higher scores on both of these measures indicate the presence of more PTSD-related distress. Additional questionnaires that were administered included the State Trait Anxiety Inventory–State Subscale (STAI-State; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and the Beck Depression Inventory–II (BDI-II; A. T. Beck et al., 1996). Higher scores on both of these measures indicate greater levels of anxiety and depression, respectively.

Group Process Issues That May Arise During Treatment

One issue that arose within this group involved managing individual needs concerning the exposure elements of treatment. As discussed above, one adaptation that this treatment required was to teach participants the general rules and procedures of exposure, to give each individual an understanding of how to conduct exposure and the rationale for continuing with an exposure exercise until anxiety was reduced. Thus, rather than focus on the specifics of individual homework assignments, emphasis was placed on conducting exposure in a fashion that would lead to fear reduction. Participants within the group thus were taught “the rules of exposure” prior to selecting specific items for homework practice. In this context, Sallie presented an interesting dilemma, specifically that one of her exposure exercises (driving from her house to the grocery) was not sufficiently long to ensure adequate anxiety reduction. The first week that she had taken on this exposure item, she reported “it went fine”; her homework records showed high anxiety on the way to the grocery, but substantially reduced anxiety on the way home. She reported that this occurred in part because “I knew I was almost done.” Although she was aware that this was technically not “correct,” she had continued to do her exposure in this fashion. Because many individuals with MVA-related PTSD fear and avoid specific driving situations, this situation is not unique and has occurred with nearly every member of the groups that we have treated. In a circumstance such as this, the individual needs to “loop” the exposure practice (e.g., repeatedly drive from her house to the grocery and back), until the client's highest anxiety rating has reduced by at least 50%. Often, one individual's positive experience with “looping” his or her exposure then becomes a positive role model for others in the group.

Another issue that is unique to group CBT is the very real possibility of peer pressure that works against therapeutic change. Although the social support of a group therapy setting can be very powerful, some group members may feel pressured to keep up with the other members of the group. For example, in the beginning weeks of treatment, exposure exercises are selected for all group members at the same level of their hierarchies. Depending on the dynamics of the group, a patient can feel pressured to move through his or her hierarchy before the patient is

³Probes were added to the interview to determine whether each PTSD symptom was attributable to pain (e.g., if a patient reported difficulty sleeping, the clinician assessed whether this symptom was due to pain). If so, the symptom was not scored on the CAPS.

actually prepared to do so. It is critical that the therapists be alert to an individual feeling as though she *should* move up her hierarchy, even though she is not quite ready to do so. Although it may be difficult to know exactly where the line is drawn between being encouraging to a patient and pushing the person too hard, we have followed the guideline to “let the patient be in control.” Given the important role that perceptions of control play in the aftermath of a trauma (Solomon, Laor, & McFarlane, 1996), it is essential that the patient always feel in charge of her own progress. Thus, the therapists' role in this treatment is conceptualized as that of a coach—someone who has awareness and appreciation for the individual's current struggles yet encourages them to push the boundary slightly. Sometimes, this role necessitates a clear discussion with the group of the expectation that every group member moves at her own pace and that one person's progress is never weighed against another's.

Following Session 6 of this specific group, Francis felt that the long bus commute was too taxing and aggravated her pain. When she phoned one of the therapists to relay her decision to drop out of group treatment, she also indicated that the other group members seemed “much worse than me” and therefore she was not sure that she needed such an intensive treatment. Although transportation barriers were the primary reason for Francis's departure from the group, the comparison of herself to others in the group is a common occurrence and is a unique clinical feature of this type of treatment format. Although treatment emphasizes that each person in the group has her own individual pattern of PTSD symptomatology, interference from these symptoms, and coping strategies, it is natural for people to compare themselves to others. One facet of this comparison often is the perceived “awfulness” of other group members' accidents, relative to their own. This may occur despite the fact that group members do not explicitly discuss their MVAs in the context of the group. Another dimension of comparison is the degree of ongoing emotional distress that the individual conveys to other group members. While this distress can be unrelated to PTSD symptomatology (e.g., anger at being denied disability status, frustration that one's lawyer seems unwilling to return phone calls), group members do not always separate these emotional reactions. In Francis's case, she appeared fairly stoic when discussing her symptoms with the group. In particular, she downplayed the fact that she had been permanently disabled by her MVA and tended to listen while others “told their story” rather than participate in this type of discussion. We have no doubt that this comparison also contributed to Francis's early departure from group, particularly given the fact that she had begun to make progress with her exposure practice and had previously stated in group that she was finding the program to be useful.

On occasion, a group member will have been involved in an MVA that caused a fatality (although this did not occur within this specific group). The presence of a fatality is a very sensitive issue and raises a number of other issues for that individual, including grief and survivor guilt (e.g., Hendin & Haas, 1991; Hull, Alexander, & Klein, 2002). Group members may learn about the fatality when creating fear hierarchies or when homework is assigned or discussed. This issue also has the potential to greatly increase other group members' anxiety because it validates their worst fear: that they could have been killed. Typically, the individual will disclose this fact reluctantly, often aware of the disturbing nature of this information. It is important for the therapists to be calm when this issue is raised, as it will create considerable tension and disruption within the group. Disclosure of a fatality requires that the therapists are honest about the terrible nature of that person's accident and the associated emotions that it produces in everyone in the room. Handling this issue clinically precedes the structured information for that session, although inclusion of two therapists can greatly facilitate this process. It is important to remember that each person within the group needs and deserves time to discuss what happened, even if it includes disturbing information such as the death of someone during the MVA. Often, imaginal exposure homework exercises can be helpful for the group member who was involved in an MVA that resulted in a fatality.

Finally, in working with individuals with MVA-related PTSD, it is not uncommon to hear them discuss their driving. Sometimes, this can be a cause for concern. We have heard individuals describe how they “keep one eye on the rearview mirror” while driving, a form of hypervigilance typically noted in individuals who were rear-ended. Likewise, individuals may describe how they constantly tap the brake pedal while driving, which can wear out the brakes rapidly. These reports can be hair-raising, as they signal dangerous driving and heightened risk for another MVA. It is crucial for the therapists to point out the inherent risk of these driving habits at the time that they are mentioned. One of the primary fears for individuals with MVA-related PTSD is that they will be involved in another serious MVA; unfortunately, sometimes the driving habits that develop following the MVA increase the likelihood of this happening. Although this treatment program does not include a driving skills element, if an individual seems to have forgotten basic driving safety, they are encouraged to enroll in a safe driving class. More typically, the individual still knows about driving safety but had “adapted” their driving to accommodate PTSD symptoms. In this event, we conceptualize these dangerous driving habits as a form of PTSD-related safety behavior and address them with exposure-based interventions (practice *not* doing the safety behavior). Additionally, it may be useful to encourage the individual to practice mindfulness prior to driving, in order to help them to “be in the moment” when behind the wheel.

Outcome

As seen in Tables 3 and 4, each patient met diagnostic criteria for PTSD at the start of treatment, although considerable variation in symptom severity was noted among the group members. Francis was clearly the least impaired, with a CAPS Total score in the “low threshold range” (score = 41; J. Hamblen, personal communication, September 17, 2001). Paula reported extreme PTSD (score = 95). All group members (with the exception of Francis) reported notable anxiety and depression, as well. Each patient (with the exception of Francis) reported at least one comorbid disorder at pretreatment. Three group members reported pain complaints related to injuries sustained during their MVA.

During treatment, Paula did very little between-session homework, despite encouragement from the other group members and the therapists. Sallie, on the other hand, was somewhat consistent in her homework, yet reported a number of upsetting life events during the course of treatment that were distracting to her progress. As seen in Tables 3 and 4, at the posttreatment session, conducted 4 weeks after the last treatment session, Paula showed little therapeutic gain at the posttreatment assessment and Sallie showed modest gain, outcomes that can be attributed both to difficulties in complying with the homework portion of treatment as well as to more severe PTSD symptoms prior to treatment. Margie, Sallie, and Betsy did not receive PTSD diagnoses, although Sallie reported subthreshold levels of symptomatology. These three patients also reported reductions in comorbid disorders, particularly Betsy and Margie. Paula continued to meet diagnostic criteria and was given a referral for continued therapy.

Approximately 4 weeks after posttreatment assessment, group members were mailed the questionnaire battery and asked to complete it. Because of this procedure, data from the CAPS and ADIS-IV are not available for the follow-up assessment. As seen in Table 4, Betsy and Margie appeared to have maintained their gains, while Sallie showed significant improvement relative to the posttreatment assessment. A phone call to Sallie indicated that she had resolved some of the life stressors and had begun to “do homework” (e.g., in-vivo exposure) during this interval, a decision which clearly had been helpful in reducing her symptoms of avoidance, hyperarousal, and, to a lesser extent, intrusive thoughts and feelings.

Summary

Although still in the early stages, this group CBT may offer promise in the treatment of MVA-related PTSD. As noted in the case example, one patient prematurely terminated treatment, while three of the remaining four showed a positive treatment response by follow-up assessment.⁴ Although results of a case example cannot be generalized terribly far, it is encouraging that patients reported satisfaction with treatment, found the group environment helpful and supportive, and indicated that they would recommend this approach to treatment to a close friend or family member.

In considering this group treatment, it is important to note that one other controlled trial of group CBT has noted less encouraging results. Schnurr et al. (2003) compared trauma-focused group therapy (Foy et al., 2000, 2001) with a nonspecific group therapy control condition in the treatment of 360 Vietnam veterans with chronic PTSD. Men were selected for the study if it was felt that they might not otherwise tolerate or comply with individual exposure therapy. The group therapy consisted of 30 weekly sessions, followed by 5 monthly booster sessions. Intention-to-treat analyses revealed no differences between the two conditions, although examination of the 217 participants who attended at least 24 active treatment sessions indicated superiority of trauma-focused group CBT over the control condition on avoidance and numbing symptoms ($p = .02$), with a trend toward lower total CAPS scores ($p = .06$) in this condition. As highlighted by these authors, continued efforts to refine group-based forms of CBT should include consideration of ways to increase the likelihood that patients will stay in treatment, possibly by including interventions such as motivational interviewing (Miller & Rollnick, 2002).

In conclusion, more work is needed to determine if group forms of CBT are viable in the treatment of PTSD. The treatment presented here may hold promise for MVA-related PTSD, a patient population that presents unique clinical features. A preliminary controlled trial of this treatment is under way at present to examine the tolerability and preliminary efficacy of group format CBT.

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⁴To determine (in a preliminary way) the effect size of this group CBT for MVA-related PTSD, we conducted a paired samples t test (pre- to follow-up assessments) for the four completers ($\eta^2 = .61$).

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Table 1
Session-by-Session Outline of Blanchard and Hickling's Individual CBT

Session	Treatment Components
1	Review symptoms and diagnosis Psychoeducation about PTSD
2	Progressive muscle relaxation (PMR) training Reading (aloud) written description of the MVA Discussion of avoidance PMR
3	Coping self-statements Creation of avoidance hierarchy—exposure instruction (in vivo and imaginal) Meeting with significant other PMR (8-muscle version)
4	Cognitive reappraisal Discussion of avoidance hierarchy—exposure continued PMR (4-muscle version)
5	Discussion of avoidance hierarchy—exposure continued Relaxation by recall
6	Discussion of avoidance hierarchy—exposure continued Cue-controlled relaxation
7–9	Exploring existential issues (especially concerning mortality) Interventions to address estrangement and social isolation Anger management Discussion of avoidance hierarchy—exposure continued
10	Review all treatment procedures

Table 2
Session-by-Session Outline of Group CBT for MVA-Related PTSD

Session	Treatment Components
1	Education and group building Introduction to the therapy group, group norms and rules Background about the treatment program Education about anxiety and PTSD Overview of treatment
2	Discussion of avoidance—continued group building Discussion of memories and avoidance Developing a hierarchy Mindfulness Part I
3	Mindfulness—tackling avoidance Mindfulness Part II Beginning to tackle avoidance (via exposure)
4	Revisiting your MVA—learning relaxation Writing about your MVA Learning how to relax: progressive muscle relaxation (PMR)
5	Continue revisiting your MVA—relaxation Working with your MVA description Learning how to relax: 7-muscle PMR
6	Developing positive self-talk—practicing relaxation Learning healthy self-talk Practicing how to relax: 7-muscle PMR (review)
7	Identifying and changing logical errors—cued relaxation Identifying and correcting logical errors Learning how to relax III: Cued PMR
8	Understanding the chain of your thinking—practicing relaxation The cycle of thoughts and feelings Practicing cue-controlled relaxation (review)
9	Anger Management I—relaxation by recall Anger management: cognitive techniques Relaxation by recall
10	Anger Management II—practice relaxation Anger management: behavioral techniques Relaxation by recall: practice
11	Pleasant activity scheduling Feeling down: how to fight it
12	Rebuilding social support Feeling alone: rebuilding your social world
13	General principles for coping with stresses Thinking ahead to the future Coping with a stressor: general principles
14	Summary of treatment and termination Review of treatment Termination: saying goodbye

Table 3

Diagnoses at Pre- and Posttreatment Assessment

	Pretreatment	Posttreatment
Francis	PTSD	n/a
Betsy	PTSD Generalized anxiety disorder	
Margie	Specific phobia: heights PTSD Major depressive disorder	Specific phobia: heights None
Sallie	PTSD Generalized anxiety disorder	Generalized anxiety disorder
Paula	PTSD Panic disorder with agoraphobia Major depressive disorder Generalized anxiety disorder	PTSD Major depressive disorder Generalized anxiety disorder

Table 4 Clinician and Self-Report Measures at Pretreatment, Posttreatment, and 1-Month Follow-up (FU)

	Francis			Betsy			Margie			Sallie			Paula		
	Pre	Post	FU	Pre	Post	FU	Pre	Post	FU	Pre	Post	FU	Pre	Post	FU
CAPS Total	41			56	3		59	31		72	38		94	77	
PSS-SR	9			20	2	6	18	14	13	46	37	19	48	50	51
IES-R Intrus.	0			8	0	0	6	1	2	17	16	10	30	32	31
IES-R Avoid/ Numb	3			13	2	0	9	3	3	22	20	10	28	28	28
IES-R Hyper.	3			14	0	0	9	5	7	15	19	12	22	24	24
STAI-State	29			62	31	53	49	50	55	66	68	43	80	80	80
BDI-II	16			27	0	3	20	16	17	25	33	19	43	53	56

Note. CAPS-Total = Clinician-Administered PTSD Scale; Pss-SR = PTSD Symptom Scale-Self-Report; IES-R = Impact of Event Scale-Revised; STAI-State = State Trait Anxiety Inventory, State Subscale; BDI-II = Beck Depression Inventory-II.