Imagery Rescripting for Recurrent, Distressing Images

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Intrusive images are a familiar aspect of daily experience that, when persistent and unwanted, may cause emotional distress. In many cases, images accompany disturbing and repetitive thoughts and ruminations. In others, images are the primary mental experience. This article describes the use of a therapy procedure—imagery rescripting (IR)—in the treatment of distressing intrusive images that occur spontaneously but are not memories of actual events or experiences (i.e., flashbacks, intrusive memories). Eleven individuals who reported recent onset of such images, and who did not benefit from brief treatment with imaginal exposure, subsequently improved significantly with one trial of IR. Subjective Units of Discomfort (SUDS) data and two case studies are presented. Results support the use of IR in the treatment of repetitive, distressing images that persisted despite previous personal efforts (distraction, reasoning) and clinical intervention with imaginal exposure.

INTRUSIVE IMAGES are a normal part of day-to-day mental experience. They occur in both nonclinical and clinical populations and may cause pleasure or distress (Rachman & DeSilva, 1978; Salkovskis, 1996). They often reflect an individual's immediate concerns or reactions to recent experience and are automatic and spontaneous. For many, such images are momentary and easily dismissed or ignored (Rachman & DeSilva). For others, disturbing, intrusive cognitions may provoke emotional distress.

This paper discusses the treatment of disturbing, intrusive images and offers a Socratic treatment approach using direct patient-generated modification of distressing images. The focus is on those repetitive, unwanted, and highly disturbing images that are newly created by the patient and are *not* images and memories of *actual* events (flashbacks, distressing recollections, and event-related dreams).

Intrusive Images

Although frequently described as thoughts (ruminations, obsessions, intrusive automatic thoughts), intrusive mental phenomena are often experienced in the form of vivid and forceful images (Lang, 1977). Examples include negative, distressing thoughts and images associated with anxiety and depressive disorders (Clark, 1992; Gold & Wegner, 1995) and trauma-related intrusive recollections such as the flashbacks and recurring images associated with posttraumatic stress disorder (PTSD; American Psychiatric Association, 1994).

Mental images may provoke significant emotional and physical reactions, often similar to those that occur under conditions of exposure to the actual stimuli (Lang, 1979). Images related to distressing or frightening stimuli may generate intense reactions that are virtually indistinguishable from the response made in the presence of the original event or feared stimulus (Lang, Levin, Miller, & Kozak, 1983; Witmer & Young, 1985). For example, patients diagnosed with panic disorder and agoraphobia experienced increased heart rate and subjective distress while imagining encounters with their panic scenes (Watkins, Clum, Borden, Broyles, & Hayes, 1990). Simple phobics responded with increased heart rate and skin conductance while imagining phobic scenes (Cook, Melamed, Cuthbert, McNeil, & Lang, 1988). Flashbacks generate intense affective and sensory reactions as the trauma survivor relives a highly distressing event (Brewin, Dalgleish, & Joseph, 1996).

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Rachman (1981) proposed that intrusive phenomena cause distress when they are repetitive and unwanted, interrupt cognitive processes significantly, provoke negative attributions, and prove difficult to control. They may become emotionally significant when appraised as having

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important implications or consequences, such as indicating personal responsibility for future events, misfortune, or the prevention of harm (Salkovskis, 1996). The perceived inability to stop intrusions may provoke significant concerns about personal control and mental stability. Long-term failure to control intrusive cognitions can lead to heightened anxiety and depression (Baum, 1990; Wells & Papageorgiou, 1995).

In circumstances where the intrusive cognitions are not readily discounted or dismissed, several reactions (other than anxiety, depression, and the like) may occur: (a) the thoughts and images occur more frequently due to their newly acquired importance and the individual's attempt to control them; and (b) the individual begins covert or overt responding in order to control or reduce negative arousal. These responses include avoidance of stimuli related to the intrusive cognitions, thought suppression, reassurance seeking, and the development of rituals (Salkovskis & Westbrook, 1989; Wells & Papageorgiou, 1995).

Treatment of Distressing, Intrusive Images

Cognitive-behavioral approaches used in the clinical treatment of distressing thoughts and images include habituation through repeated and prolonged exposure, thought-stopping and other distraction techniques, standard cognitive therapy interventions (e.g., validity testing of, and rational responding to, the intrusive thoughts), and direct modification of the intrusive images. The effectiveness of cognitive-behavioral interventions, particularly prolonged imaginal exposure, for treatment of PTSD symptoms, including intrusive recollections, has been well demonstrated (Dancu, Foa, & Smucker, 1993; Foa, Rothbaum, Riggs, & Murdock, 1991; Grigsby, 1987; Marks, Lovell, Noshirvani, Livanou, & Thrasher, 1998; Resick & Schnicke, 1992; Vaughan & Tarrier, 1992).

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Prolonged exposure to obsessional thoughts/images, in combination with response prevention (i.e., prevention of rituals, reassurance, or any other neutralizing behaviors), has also consistently produced positive results for patients diagnosed with obsessive-compulsive disorder (Foa, Steketee, & Ozarow, 1985; Freeston et al., 1997; Rachman & Hodgson, 1980). Patients learn that the neutralizing behaviors are *not* essential for anxiety reduction (Salkovskis & Kirk, 1989; Salkovskis & Westbrook, 1989). Exposure techniques also proved helpful in the treatment of anxious ruminations relating to anticipated negative events. Lepore (1997) reported that test-anxious students using an exposure procedure of writing about their thoughts and feelings regarding an upcoming exam experienced a reduction in distress associated with intrusive thoughts. The frequency of intrusive thoughts and images did not change, but the overall discomfort and depressive symptoms associated with the intrusive cognitions did decrease significantly. Students who merely wrote about what they had done during the past 24 hours, without mentioning exam-related thoughts and feelings, did not experience any relief. Lepore concluded that the reduction in overall arousal and negative mood state enhanced the students' abilities to more effectively tolerate intrusive thoughts.

Thought Stopping

Thought-stopping techniques were applied to rumination and intrusive cognitions (Emmelkamp & Kwee, 1977; Emmelkamp & van der Heyden, 1980; Likierman & Rachman, 1982; Salkovskis & Westbrook, 1989). With this technique, patients deliberately evoke the upsetting ruminations and then apply thought stopping as a substitute for overt or covert neutralizing. Thought stopping may be most effective when the patient can limit the duration of obsessional cognitions without resorting to neutralizing behaviors, thereby eliminating the need of covert or overt compulsions (Salkovskis & Kirk, 1989). For example, Kirk (1983) taught patients to evoke ruminations and then to employ thought stopping at the point at which anxiety-reducing thoughts or behavior would normally occur. Home and within-session practice was emphasized. Kirk noted that of 16 patients, 12 were successfully treated and 2 showed limited to moderate improvement. In another study, Johnson, Shenoy, and Gilmore (1983) used thought stopping in the treatment of recurring traumatic flashbacks and obsessional ruminations related to the combat experiences of a Vietnam veteran. The authors reported a reduction of obsessional rumination from seven episodes to two episodes per day. The remaining ruminations caused less distress. The flashbacks were not significantly affected by the thought-stopping procedure but were eliminated following the subsequent use of an anger-induction method in which the patient was instructed to express anger and rage subsequent to flashbacks as a substitute for fear and anxiety.

Therapist-Directed Imagery Modification

Other approaches to the treatment of disturbing thoughts, images, and memories involve therapist-

directed manipulation or modification of the images themselves. One example is the development of "coping imagery," proposed by Meichenbaum (1977), as a treatment for situation-specific anxiety. Patients are instructed to visualize the anxiety-provoking scene and then imagine themselves responding to the stressful situation through deep breathing, relaxation, and self-instruction. Beck and Emery (1985) describe a number of imagery-modification procedures for anxious patients who imagine distressing events happening to them. Two such techniques, repetition and decatastrophizing, involve imaginal exposure. In repetition, the patient repeatedly visualizes the stressful image until the image itself eventually changes or until anxiety is spontaneously reduced (habituation). Decatastrophizing upsetting intrusive images resembles flooding in that the patient is asked to imagine the worst scenario coming true and then discusses whether this outcome is as catastrophic as previously imagined. Other imagery-modification techniques mentioned by Beck et al. include instructing patients to substitute positive imagery (e.g., pleasant scenes to change outcomes of feared situations) or to exaggerate the feared images into the realm of the absurd. For example, patients who are socially anxious or phobic might be instructed to reduce the intimidating aspects of feared situations by visualizing images of the audience or others as being less fearsome or important (e.g., imagining members of the audience wearing inappropriate clothing).

Whereas imagery-modification procedures alter the *content* of disturbing images, neurolinguistic programming (NLP) techniques focus on changing the *form* and *quality* of the images themselves (Bandler, 1985; Bandler & Grinder, 1981). According to NLP proponents, the emotional impact of unpleasant images abates with the alteration of the visual elements of the images, which may include colors, size of objects, size of viewing screen, brightness, distance, duration, speed, clarity, and perspective. Using another NLP intervention, the rewind technique, Muss (1991) reported treating 19 police officers suffering from PTSD associated with their traumatic, near-death experiences or exposures to scenes of horror and death. Officers were instructed to mentally rewind the disturbing images and traumatic scenes as if on a movie screen. According to Muss, officers reported significant reduction in the frequency of flashbacks, nightmares, and other intrusive images after three sessions. However, Muss did not provide data to support this assertion. In general, the efficacy of NLP strategies for affective relief through imagery modification appears to be based on anecdotal evidence rather than empirical methods.

Another technique, Eye Movement Desensitization and Reprocessing (EMDR), uses imagery modification in the treatment of disturbing memories, thoughts, and images (Shapiro, 1995). With EMDR, patients are instructed to develop and manipulate images related to their presenting problems. Directed lateral eye movements are then elicited, in theory to weaken distressing images and the related negative belief statements (e.g. "I'm powerless") or to strengthen positive images. When treating PTSD, Shapiro directs patients in the manipulation of images associated with traumatic memories. For example, patients who have difficulty talking about the traumatic event may be instructed to visualize placing a protective glass barrier between the self and the perpetrator or to view the traumatic scene from a distance. Shapiro maintains that such manipulation acts as a transition to make the images more manageable until eventually the entire memory can be processed. During reprocessing, patients are assisted in adopting positive thoughts while visualizing traumatic scenes ("I survived"; "I'm in control") to compete with long-held negative self-statements. Patients may also be instructed by the therapist to make specific changes in their images, such as imagining themselves kicking or striking the perpetrator. In this respect, EMDR requires active involvement of the therapist in directing imagery modification.

> The effectiveness of cognitive-behavioral interventions, particularly prolonged imaginal exposure, for treatment of PTSD symptoms, including intrusive recollections, has been well demonstrated.

Imagery Rescripting

Imagery rescripting (IR) is a recently developed imagery-focused treatment for PTSD symptoms and trauma-related beliefs and schemas (Dancu et al., 1993; Smucker & Dancu, 1999; Smucker, Dancu, Foa, & Niederee, 1995; Smucker & Niederee, 1995). It was developed as an information-processing, schema-focused treatment for recurring traumatic memories associated with childhood trauma, including physical, sexual, and emotional abuse. As a cognitive-behavioral treatment, IR integrates the use of imagery, verbal processing, and schema-modification to eliminate intrusive posttraumatic symptoms, challenge maladaptive trauma-related beliefs, and promote the development of effective coping strategies. In IR, patients access the entire fear network of their traumatic memories through imaginal exposure and then use imaginal rescripting techniques to modify the frightening images and challenge trauma-based beliefs, especially those of powerlessness and helplessness. Using Socratic inquiry, the therapist facilitates patient-generated modification of

images and beliefs, whereby victimization imagery is replaced by mastery imagery. Since the patient, not the therapist, controls and directs the changes, IR promotes a sense of empowerment by encouraging active, creative reprocessing of the images to produce changes in affect, self-perception, and self-appraisal.

The impetus for the present paper came from our experience with a number of patients who, during or following treatment for depression, somatization, or posttraumatic symptoms, also presented severe affective and cognitive distress in connection with sudden onset of repetitive disturbing images that, though vivid and intrusive, were not personal memories (flashbacks, recollections of life events). These images resembled those described by Reynolds and Brewin (1998) as elaborative cognitions, that is, images that have some bases in experience but that do not correspond to any actual experience. Although flashbacks and intrusive memories of actual events are by far the more frequently reported distressing imagery experiences (Ehlers & Steil, 1995; Reynolds & Brewin), distressing, repetitive, nonmemory-type images accounted for a high percentage of the images reported by trauma victims (11%), depressed individuals (15%), and controls (12%; Reynolds & Brewin).

In imagery rescripting, patients access the entire fear network of their traumatic memories through imaginal exposure and then use imaginal rescripting techniques to modify the frightening images and challenge trauma-based beliefs, especially those of powerlessness and helplessness.

To date, there are no reports in the literature of the use of IR for distressing images that occur spontaneously (i.e., not memories of actual traumatic events). This paper presents data and case studies in which patients with such repetitive, distressing images were successfully treated with IR.

Method

Subjects

Subjects were 11 consecutive patients treated by two psychologists at the Medical College of Wisconsin for recurrent, disturbing images. Each patient was currently or had been in treatment with one of the psychologists for posttraumatic symptoms related to industrial accidents ($n = 8$), motor vehicle accidents ($n = 1$), depression ($n = 1$), or nonepileptic seizures ($n = 1$). Two patients were seen while hospitalized after their accidents. The rest were seen as outpatients. No patients were excluded from the study. The two psychologists had 15 and 16 years of postdoctoral clinical experience.

The images reported by the 8 industrial accident patients were not flashbacks or intrusive recollections of their accidents. All 11 patients reported highly disturbing, repetitive images that had developed suddenly and that could not be ignored or dismissed. Table 1 provides descriptions of the intrusive images and the patients' recent life events.

Patients included seven men and four women; five were married, five were single, and one was separated. The average age was 31 (range: 19 to 44). Average level of education was 12.36 years (range: 10 to 14). Of the nine accident patients, two met criteria for PTSD at the time they reported the intrusive images. Five others had been treated for PTSD (psychotherapy) and had returned to work symptom-free. None of the patients were under psychiatric care, but three were using low-dose amitriptyline (25 to 50 mg, q.h.s.) for treatment of sleep disturbance. The interval between onset of images and treatment ranged from 1 to 87 days (mean = 21.7 days).

Patients were selected for this treatment procedure if they met the following criteria: (a) they reported repetitive, distressing images of being injured, of seeing someone else injured, or of intentionally harming themselves; (b) the images were spontaneous rather than based upon an actual experience; and (c) the images produced significant emotional discomfort and interfered with the patient's daily functioning (sleep disturbance, avoidance behaviors, anxiety, and obsessions with safety). In each case, the family expressed concern about the patients' preoccupations, and patients questioned their own mental stability due to the disturbing content and refractory nature of the images.

Procedure

Evaluation and treatment took place in one session. A clinical interview was completed with each patient. Patients who reported images of hurting themselves were evaluated for suicidal ideation and history of self-injurious behavior. All patients denied suicidal intent. Ratings on the Subjective Units of Discomfort Scale (SUDS; 1-to-10 scale; Wolpe & Lazarus, 1966) were taken before (baseline), during, and after treatment of the repetitive images. Posttreatment ratings were obtained at various intervals over an 8-week period.

Treatment of the recurrent images involved four phases: (a) the patient's description of the images and their impact; (b) education about the nature and meaning of images; (c) description of the treatment process; and (d) treatment. In the first phase, patients described the content, frequency, and context of the repetitive im-

Table 1
Images, Cues, and Recent Stressors

Patient	Images	Cues	Stressor
1	Uninjured hand is crushed in machine at work. Uninjured hand is amputated in machine.	Thoughts about returning to work.	Crush injury to right hand resulting in amputation.
2	Arm rotting in cast.	Sight of the cast. Thoughts about arm.	Arm injury at work involving rupture and necrosis of forearm muscle.
3	Stranger assaults her in alley behind her home.	No triggers. No history of assault.	Finger tip amputations while operating a machine at work.
4	Surgically reattached hand "falls off."	Thoughts of holding his arm down to his side.	Hand injury at work. Near amputation; surgical replantation.
5	Cutting his arm open. Poisoning via carbon monoxide. Jumping from freeway bridge.	No specific triggers. No suicidal ideation.	Punch press injury to right hand; loss of two fingers.
6	Falling from catwalk. Falling from ladder.	Thoughts about working at heights.	Hand injury while operating a brake press at work.
7	Falling from several objects (ladders, building, bridge)	No triggers.	Nonepileptic seizures.
8	Hands are drawn into rotating engine fan and belts of his car. Hand is cut by handheld power saw.	Checking auto engine fluid levels. Repair work on his car. Thoughts about using his saw.	Crush injury to his left hand while operating a machine at work.
9	Truck/train ramming her car, injuring her children.	No triggers.	Lower extremity injuries from a motor-vehicle crash. (Her children were not involved.) Amnesia for the actual event.
10	Watching his children, neighbors being injured with lawn mowers, snow blowers, house fans.	Sights, sounds of machines, fans. Thoughts of same.	Hand injury at work.
11	Leaping off balconies, bridges.	Proximity to balconies, bridges; anticipation of visiting places with atriums, balconies, etc.	History of kidney transplant. Difficulty finding work. Mild to moderate depression. No suicidal ideation.

ages, the disruption caused by the images, and strategies used to control them (distraction, thought suppression, rationalization). During the second, or educational, phase, patients reviewed the possible causes and implications of the images and the effect of anxiety, fear, and depression on the continuation of the images. In phase three, the treatment process was described, including a discussion of exposure procedures, imagery rescripting, and SUDS ratings.

The treatment phase included the following components: (a) four trials of imaginal exposure to the disturbing image; (b) IR; (c) reexposure using the original image. SUDS ratings were obtained prior to beginning imaginal exposure (baseline), following each imaginal exposure trial, after each IR, and following reexposure to the original image (Table 2). The imaginal exposure (IE) procedure used with these patients required that they close their eyes, activate the distressing images, and slowly describe them in vivid detail. Due to the nature of the images (brief, limited content), each of the four exposure trials lasted about 2 to 3 minutes. Our use of this IE method differs from the traditional method in two respects. First, exposure time was brief, as it was adapted to fleeting images as opposed to the more typical life events for which IE was originally developed. Second, we stopped IE after the fourth exposure trial, whereas traditional use of IE would have required continued repeated exposure trials beyond the four employed here. Our decision was based on our clinical experience with the IR treatment for traumatized patients (industrial and motor-vehicle accidents, assaults), patients who failed to desensitize to their memories after multiple IE exposure but who experienced significant improvement after one session of IR (Grunert, Weis, & Rusch, 2000). The design for this study included four trials of IE, followed by IR if the patient's SUDS levels did not decrease.

After the fourth IE trial, the patients were instructed in the IR procedure. They were asked to experience the images again and to identify the most disturbing element or detail. Imagery rescripting began with the therapist

Table 2
Subjective Units of Discomfort Scale (SUDS) Data

Patients	Baseline[a]	Imaginal Exposure[b]	Imagery Rescripting	Reexposure to the Original Images	Follow-Up in Weeks		
					1	3–4	6–10
1	10, 9	10, 10, 10, 10	2, 1	1, 1	1		1
2	10	9[c]	1	1	1	1	1
3	9	7, 7, 7, 7	2	1	1	1	
4	10	10, 10, 10, 10	1	1	1		1
5	8, 7, 7	10, 10, 9, 9	1, 1, 1	1, 1, 1	1	1	1
6	5, 4	10, 10, 10, 10	5, 1	1, 1	2	2	1
7	8, 8, 7	10, 10, 10, 10	1, 2, 1	1, 1, 1	1	1	1
8	5, 5	9, 8, 8, 8	1, 1	1, 1	1		1
9	7, 4	9, 9, 9, 9	1, 1	1, 1	1	1	1
10	8, 7, 4	9, 9, 9, 9	2, 1, 1	1, 1, 1	3, 2		1
11	7	10, 10, 9, 10	1	1	1		1

[a] Separate SUDS data for each specific image.
[b] Four exposure trials.
[c] Time limits during this hospital-based treatment required immediate use of IR following one exposure trial.

asking, "If you could now change that part of your image (the most disturbing element) in any way to make it less threatening or frightening, what change or changes would you introduce?" Those patients who were unable to alter the images were asked to decide whether the images represented memories of actual events or imagined experiences. After giving this question some consideration, all patients concluded that since the images were imagined, they could indeed be changed. In response to Socratic questioning, patients changed the images and reported whether or not the change reduced their fear or discomfort (lower SUDS; see Imagery Rescripting column, Table 2). Patients were then asked to reimagine the original image. Those patients who reported several different recurrent images during evaluation were instructed to apply IR to each image. Following successful desensitization to the recurring images, patients were involved in cognitive restructuring to assist them in developing accurate appraisals of the nature and importance of the images, understanding the implications of having had such images, and developing effective strategies for the management of any recurrence of these or other distressing images. This entire treatment sequence occurred within one treatment session (60 to 90 minutes).

Follow-up evaluations obtained SUDS ratings from patients within 1, 3 to 4, and 6 to 10 weeks posttreatment. At follow-up, patients were asked to visualize their original distressing images and to provide SUDS levels.

Results

Four trials of imaginal exposure did not promote desensitization for any patient in this study. However, all patients achieved substantial relief from the distress associated with their repetitive images following one trial of IR (Table 2). On average, SUDS ratings fell 5.76 points following use of IR (baseline to IR, all images). Eight patients had reported variations of the same image or different images (see case example, Peter). These patients applied IR to each image (Table 2). SUDS data for the original image reexposure phase indicate absence of significant distress when patients attempted to revisualize the original image following involvement in the IR treatment. This outcome was maintained over a 6-to-10-week follow-up. The follow-up SUDS data are, with one exception, given for the most distressing original image for those patients who had initially presented multiple images.

Case Examples

Peter

Peter, a 22-year-old factory worker, sustained a crush injury to his right hand while operating a punch press. He lost three fingers and suffered severe impairment of hand function. He responded well to psychotherapy for anxiety, depression, sleep disturbance, pain, flashbacks, and nightmares. Three months after his accident, he returned to work and was able to operate punch press machines. Several weeks later, his mother contacted one of the authors and requested an emergency consultation for Peter. During the interview, Peter indicated that on the previous day he began experiencing persistent, graphic images involving self-mutilation and suicide. The images were so distressing that Peter was unable to fall asleep the night before and could not prevent the images from continuing into the day of the consultation. He described three images: (a) slicing his right arm open with a butcher knife, (b) connecting a hose from his car's

exhaust pipe to the interior of the car and succumbing to carbon monoxide, and (c) jumping from a freeway overpass into the speeding traffic below. Peter said he was highly perplexed and distraught over these images. He denied any intention of actually harming himself and denied any previous history of suicidal ideation. The images were so persistent and dramatic, however, that he questioned his mental state and anticipated yet another night of sleeplessness and fear due to the recurring images. During treatment, Peter attempted four trials of imaginal exposure to the image of slicing his arm. He provided graphic details of watching blood squirt from his arm onto the furniture and carpeting in his bedroom. In contrast to a preexposure SUDS level of 8, Peter reported SUDS levels of 10 for the first two exposures and 9 for the third and fourth.

He then agreed to try IR with the arm image but initially had difficulty changing the images. When asked about the most disturbing element in his image, Peter identified the blood oozing and squirting from the arm wound. He agreed to concentrate his rescripting efforts on this feature and moments later smiled, stating that he was visualizing chicken noodle soup coming out of his arm instead of blood. He reported a SUDS level of 1. He then applied rescripting to the two remaining images (soap bubbles flowing from the hose into the car's interior, swinging from the freeway overpass by a rope tied to his ankles, dodging vehicles and avoiding harm). In each case, SUDS ratings fell from 10 to 1 following one trial of imaginal rescripting. Reexposure to the original images failed to produce anxiety or distress. Peter gave a SUDS rating of 1 during this phase of treatment and indicated that the new images (chicken soup, soap bubbles, swinging from a rope) interfered with the original images. He found all of these new images rather humorous. The next day, Peter revealed that he had slept well that night and that the images did not return. When seen 2 days later, he reported no distress while recalling the original images (SUDS rating: 1). The same was true at 10-day and 6-week follow-up sessions.

Glenda

Glenda, a 35-year-old single dialysis technician, had been successfully treated 2 years earlier by one of the authors for depression and an eating disorder. When she requested psychological services again, Glenda described the recent development of recurrent thoughts and images of throwing herself from a balcony or other high places. The images occurred frequently each day, triggered by the presence of stairwells and balconies at work, church, and other locations. In the typical image, Glenda saw herself climb over a railing, plummet to the surface below, and land with horrible sounds of bones breaking and gasping for air as she lay dying. Visits to her sister at work became particularly troublesome for Glenda because the visits required meeting her sister on the fourth floor of an office building with an atrium. Glenda became concerned about the increased frequency of the graphic images. She also felt mildly depressed and frustrated about problems she was having in her relationships with her parents, whom she described as overprotective. She denied suicidal ideation. Her inability to prevent the images alarmed her and she anxiously wondered if she was losing control. Glenda began avoiding heights and became excessively anxious when this was not possible. Several approaches to treatment were initially considered. Systematic desensitization seemed appropriate because Glenda's images usually occurred when she was near a bridge, balcony or stairwell, and she was developing a pattern of avoidance. However, she did not wish to perform in vivo exposure at this point. She believed that she had already tried using a form of thought stopping with little success. Glenda agreed to try imaginal exposure and gave a preexposure SUDS rating of 7. She chose the image of herself leaping from a fourth-floor railing overlooking the atrium. During exposure, she immediately became tense and tearful, with rapid breathing, and she reported a SUDS of 10. SUDS levels of 10, 9, and 10 were obtained with three subsequent exposures. Glenda then reviewed and agreed to use IR:

THERAPIST: Can you visualize your image again and identify the most frightening or disturbing part?
PATIENT: The worst part is hitting the ground. I hear my bones cracking and I am gasping for air . . . dying.
T: If you could change this part of your image in any way to make it less threatening or frightening, what change would you introduce?
P: I am not sure I can change the image.
T: In your image, what kind of clothing are you wearing?
P: I don't know, really. I am usually dressed in casual clothes when I visit my sister.
T: Describe your clothing.
P: I see myself in khaki slacks and black sweater.
T: Was that particular clothing always a part of your imagery?
P: No . . . I added that just now.
T: So you changed one part of your image.
P: Yes, I guess I did.
T: Do you think you can change other parts of the image?
P: Perhaps.
T: You indicated that the worst part of your image was hitting the ground, hearing your bones break, and hearing yourself gasping for air. Can you think of anything that you can do with this part of the image to make it less distressing?

P: [Moments pass . . . smiles] Tigger! [laughs]
T: Tigger?
P: Yes, Tigger from *Winnie the Pooh.* I was reading that story to my nieces last week. He bounces as if on springs. I see myself as Tigger leaping over the railing and bouncing off the floor below, then bouncing around down there.
T: You're laughing.
P: It's funny. I'm bouncing and leaping like Tigger.
T: What is your SUDS rating now?
P: Zero!
T: Can you visualize your complete image now, this time with you landing like Tigger?

Glenda revisualized the image, substituting the Tigger-like ending. She reported a SUDS of 1. She said she was having difficulty visualizing the original image without also seeing herself bouncing. She left the session reporting increased confidence and little concern about the images. Telephone contact the next day revealed that Glenda had visited her sister at work that day and, while on the fourth floor, approached the railing and looked to the surface below. Initially, she experienced anxiety but the image of her bouncing off the floor soon came to mind and she calmed down. She remained at the railing for a while and when she left she felt calm and relaxed. At 1-week follow-up, she stated that for the first time in months she sang with the church choir in the balcony. She was able to visualize the original image without distress (SUDS rating: 1). At 6-week follow-up, Glenda indicated that she was free of the image and no longer avoiding heights.

With imagery rescripting, patients develop their own ideas for imagery modification and thus assume a greater degree of control than may be achieved by having them simply respond to a therapist's suggestions.

Discussion

Unwanted, repetitive images provoked significant distress in these patients. The images, which were not memories of personal experiences, nevertheless caused considerable anxiety because they were persistent, vivid, and dramatic, and because patients had difficulty explaining and controlling them.

The IR procedure resulted in a dramatic reduction in the frequency and emotional impact of the images. Several factors may account for this effectiveness. First, for reasons not clearly understood, most of the patients generated absurd or humorous changes to their images and reacted with amusement and, in some cases, delight. This initial positive change in affect may have reinforced the patients' desire to repeat the altered images, exposing them to additional opportunities for anxiety reduction. A second and related factor involves the concept of reciprocal inhibition (Wolpe, 1958, 1995), which predicts that the pleasant, amused reactions of patients to their IR images would directly inhibit the negative arousal associated with the original images. In fact, after completing the IR procedure, several patients had difficulty invoking the original image without automatically experiencing the IR image. Second, the sudden experience of increased control over the images enabled patients to immediately make more positive assumptions about their mental states and about the images themselves. Rather than continuing to view the images and their inability to control them as signs of serious mental disorder, patients instead understood the imagery experience as a nonthreatening annoyance or inconvenience, with no implication for self or others. Finally, with IR, patients developed attributions of self-efficacy and mastery in contrast to previous feelings of helplessness. Thus, IR, as an exposure-based treatment, resulted in symptom alleviation consistent with the theoretical conceptualization of Foa and Kozak (1986), which emphasizes activation of the fear network associated with these disturbing images, and the subsequent emergence of new information that contradicts the individuals' expectations. Similar to the outcome of prolonged imaginal exposure, IR helped these patients discover that affective distress was not an inevitable consequence of recalling, visualizing, and experiencing the images.

The IR procedure differs from other imagery-modification treatments because patients create their own changes to the images. This is accomplished through a Socratic style of questioning that encourages reflection and problem solving. In contrast, with guided-imagery approaches, the therapist recommends changes to the patient. For example, Bandler (1985) describes a highly directive approach for treating phobias and anxiety-provoking images. Therapists dictate specific instructions for each phase of imagery modification. Patients merely follow the therapists' directions. Similarly, Muss (1991) coached patients through the "rewind" technique by giving highly specific instructions. Typically, most guided-imagery techniques include (a) directed dialogue—*the therapist dictates* specific dialogue and statements that are to be repeated by the patient during imagery exercises; (b) directed transformation—*the therapist tells* the patient to change specific actions of one or more characters; and (c) prompted transformation—*the therapist suggests* a de-

sirable general outcome, but the patient is responsible for determining the specific means of achieving that outcome (Edwards, 1989). All of these approaches require relatively passive participation from the patient. With IR, however, the patients develop their own ideas for imagery modification and thus assume a greater degree of control than may be achieved by having them simply respond to a therapist's suggestions. This exercise of personal control may more effectively give patients a sense of mastery over the images, directly in contrast to their pretreatment experience of helplessness and loss of control (Smucker et al., 1995).

There are several limitations of this study. First, as a multiple-case study design, the study did not include a no-treatment control group. Second, further research is needed to determine whether the results can be generalized. For example, although all subjects in this study presented depressed or anxious mood and many had recently experienced stress related to traumatic injuries, none were diagnosed with psychiatric disorders such as major depression, OCD, panic disorder, or psychosis. Third, the images reported by our patients represented fairly isolated and recent cognitive experiences and as such were not associated with long-standing pathological beliefs, schemas, or attitudes. In contrast, the mean duration of obsessive thoughts among the 29 patients in the Freeston et al. (1997) study was 9.4 years. Therefore, the findings cannot be generalized to long-established and fixed intrusive images and ruminations. Fourth, the imaginal exposure procedure used in this study included only four brief exposure trials within the context of just one session, in contrast to the traditional procedure involving several lengthy exposure sessions (see Foa & Kozak, 1986). As such, we must be cautious in drawing conclusions about the relative merits of IR versus *traditional* imaginal exposure in the treatment of disturbing images. Nevertheless, our finding of dramatic improvement after one trial of IR in contrast to no improvement following four trials of imaginal exposure supports the use of rescripting as a promising alternative treatment for recurrent distressing ruminations and images.

Although the intervention described in this paper occurred within the time frame of one session, it should be emphasized that the treatment occurred in the context of existing or previous therapeutic relationships with the two psychologists. Rapport and trust were well established. The patients were already familiar with the cognitive-behavioral model of treatment, and intervention was provided by licensed psychologists, each with 15 years or more of postdoctoral clinical experience, 5 to 10 years of involvement in the use of exposure procedures, and over 2 years of experience with studying and applying IR in the treatment of trauma symptoms. Our experience with this treatment suggests that IR for intrusive images may be contraindicated with (a) patients who report distressing images of self-harm along with actual suicidal ideation, (b) patients currently involved in abusive relationships or confronted with overwhelming stress, (c) patients currently involved in active substance abuse, and (d) patients who present evidence of acute psychosis or severe dissociation.

The present study found that one session of rescripting produced a significant reduction in distress associated with unwanted thoughts and images, and that this improvement was consistently maintained over time. Future investigations should compare IR with other formal treatments for intrusive images such as traditional prolonged exposure, distraction, thought stopping, and guided imagery. The effectiveness of IR in treating intrusive images reported by patients with more serious psychiatric disorders should also be investigated. Finally, it would be interesting to examine the use of IR in the treatment of rumination and obsessive thoughts, which are not initially reported as images. If such thoughts could be converted to images, IR may offer an effective treatment alternative.

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