

# Crisis Intervention Techniques for Panic Disorder

FRANK M. DATTILIO, Ph.D.\*

*Panic disorder is estimated to affect more than 4% of the U.S. population. It is assumed that this incident rate increases during crisis situations. While the professional literature is replete with references on the treatment of panic disorders, few authors address the use of nondrug treatment in conjunction with crisis intervention. This article provides an overview of the latest nonpharmacologic interventions for panic along with a description of their effectiveness in reducing the onset of symptomatology as well as preventing relapse during crisis.*

## INTRODUCTION

Panic disorder is one of the most common and disabling psychological disorders encountered not only in mental health and general medical settings, but crisis centers as well. For some time, it has continued to rank among the top 10 disorders found in settings involving psychiatric emergencies (1, 2). In past studies, investigators have estimated that the one-month prevalence of panic disorder among primary care patients was 1.4% (3). This appears to hold true to date with a slight increase (4). In addition, statistics derived from a study assessing community-based epidemiological catchment areas estimate that in any given month, 0.5% of the population will be diagnosed with panic disorder (5), a number likely to escalate, especially during crisis situations (e.g., natural disasters, auto accidents, etc.).

According to the *Diagnostic and Statistical Manual for Mental Disorders*, fourth edition, revised (DSM-IV) (6) panic attacks are diagnosed by the presence of at least four of the following symptoms: 1. shortness of breath or smothering sensation; 2. dizziness, unsteady feelings, or faintness; 3. palpitations or accelerated heart rate; 4. trembling or shaking; 5. sweating; 6. choking; 7. nausea or abdominal distress; 8. depersonalization or derealization—a feeling that the sufferer's body or environment, respectively, is not real; 9. numbness or tingling sensations in one or more parts

\*Clinical Associate in Psychiatry, University of Pennsylvania School of Medicine; guest lecturer in psychiatry, Harvard Medical School. **Mailing address:** University of Pennsylvania School of Medicine, 1251 S. Cedar Crest Blvd., Suite 211-D, Allentown, PA, 18103.

of the body; 10. hot flashes or chills; 11. chest pain or discomfort; 12. fear of dying; and 13. fear of going crazy or losing self-control. To arrive at a diagnosis of panic disorder, the attacks have to occur "unexpectedly" and the symptoms reach a peak within 10 minutes (6).

Although the literature on crises and crisis intervention in general is abundant (7-10), very little has been devoted to specifically addressing crisis intervention for panic disorder (11-13). This situation is surprising, because it is well documented that physicians have, for the past 120 years, experienced difficulty in differentially diagnosing panic disorder from a variety of physiological disorders (14). Moreover, since the primary goal of crisis intervention is to reduce the patient's self-reported emotional distress, it would be expected that panic would appear near the top of the list of disorders targeted in crisis-intervention settings.

The scarcity of crisis-intervention literature regarding panic may be due to the fact that panic attacks are often viewed as emergencies or crisis manifestations of some other underlying problem. In the medical setting, for example, a physician will usually focus immediately on any chronic underlying physiological condition suspected of precipitating the panic symptoms, such as temporal lobe epilepsy, coronary artery disease, alcohol or tranquilizer withdrawal, hyperthyroidism, pheochromocytoma, electrolyte abnormalities, or stimulant medications/decongestants. (See 14 for a more extensive list). In addition, symptoms of panic can be secondary to other mental disorders, such as major affective disorders, personality disorder, and alcohol withdrawal.

## THEORIES OF PANIC

There have been several attempts to explain the etiology of panic. Due to the space limitation, only the more popular theories will be discussed in this article. The psychobiologists have contributed a number of hypotheses, which include the septohippocampal theory (15), the locus coeruleus theory (16, 17) and the gamma-aminobutyric acid-benzodiazepine hypothesis (18). More recently, cholecystokinin tetrapeptide (cck-4) has been studied as a panicogenic agent (19).

Another possibility is that there is a specific genetic basis for a predisposition to panic disorder. Recent research on deoxyribonucleic acid (DNA) has analyzed the genetic structure of panic victims and members of their families who also reported a history of experiencing panic or related symptoms. Consequently, this may render certain individuals more prone toward panic, especially during crisis situations.

As a consequence of these biology-based theories, the treatment of

choice in medical settings involves a pharmacological regimen of high-potency benzodiazepines, tricyclic antidepressants or monoamine oxidase inhibitors (20), coupled with behavior therapy (21).

Although the psychobiological explanation of panic has merit, it retains several drawbacks. For one, there is little evidence to prove a psychobiological etiology for panic disorder—that is, there is no sure method to test for chemical imbalances or other difficulties in the brain. In fact, additional evidence reviewed in Kendall and Hammen (22) has recently suggested that the biological model of panic disorder does not explain as much as one thought. Even though pharmacotherapy can expeditiously alleviate symptoms and possibly reduce the likelihood of phobic avoidance by reducing or ameliorating spontaneous panic attacks, it is hardly a cure. Pharmacotherapy provides the afflicted individual with little in the way of true coping mechanisms other than the reliance on simply taking the prescribed compound as instructed. In addition, individuals with panic disorder can be among the most difficult groups of patients to treat with medication—all pharmacologic compounds have side effects and panic attack patients are often hypersensitive to bodily sensations (23).

Pharmacological compounds have offered the most expedient treatment in crisis settings and have long been the treatment of choice for emergency situations involving panic and acute anxiety symptoms, but the medical literature still suggests that the first stage of treatment in emergency settings should be to negotiate explanatory models of the illness with the patients (24) and to elicit patients' beliefs about their illness prior to the actual treatment intervention. Such open-ended questions as "What do you believe is the problem?" and "What reasons would you give for the onset of symptoms at this particular time?" are recommended (23). Unfortunately, questioning can be limited to gathering some background information about the patient's relevant medical history subsequent to a blood profile and/or electrocardiogram (EKG), and medication is often dispensed without further exploration or explanation.

Psychobiological theories argue that panic is essentially the result of biochemical abnormalities associated with genetic predispositions; however, more recent literature suggests that psychologically based theories are better supported by empirical research (14, 25).

A cognitive-behavioral theory of panic contends that psychological factors rather than solely psychobiological factors precipitate panic symptoms. Whereas the cognitive-behavioral theories do acknowledge the neurochemical components of autonomic symptoms, more emphasis is placed on the perception of threat or danger whether it involves internal

(bodily sensations) or external (environmental) events (26, 27). Specifically, the misattribution theory introduced in the literature within the last decade has proposed that specific symptoms resulting in hyperventilation elicit panic in individuals who are predisposed, whether genetically or psychologically, to catastrophic misattribution of internal bodily sensations (28, 29). According to this theory, the most common physical sensations during a panic attack are: dizziness, vertigo, blurred vision, tachycardia, palpitations, numbness, tingling in the hands and feet, nausea, and breathlessness (29). Clark et al. (30) noticed that these sensations bare similarity to sensations produced by hyperventilation. Thus it was hypothesized that hyperventilation may play an important role in the initiation of panic attacks. The theory purports that some individuals increase their respiratory ventilation when under stress, especially during a crisis. This increase causes carbon dioxide to be expelled from the lungs triggering a decrease in the partial pressure of carbon dioxide ( $p_{CO_2}$ ) in the blood with an increase of pH in the blood. Such changes in the blood's chemistry manifest uncomfortable body sensations, such as the aforementioned in which the individuals respond with startle reaction and apprehension. This increased apprehension subsequently elicits further augmentation in ventilation which spirals into a full-blown panic attack.

Clark et al. (30) contend that it is either the perception of the feared stimuli itself or the induction of fear already elicited by other stimuli that contributes to the catastrophic reaction during this event that precipitates panic. Hence, the notion of teaching individuals how to avoid hyperventilation when under stress, particularly crisis situations, via breathing retraining, is the crux of the treatment.

Although panic attacks have often been reported as occurring "spontaneously," Beck et al. (25) have found that some particular experiences appear to activate a person's "alarm system" (p. 112) involving cognitive-affective and physiological components. In addition, the aspect of perceived control has received increasing attention in explaining outcome effects in the treatment of panic (4, 31).

#### ASSESSMENT AND DIAGNOSIS

A comprehensive assessment protocol for diagnosing panic is quite complex and usually involves a structured interview in most clinical settings. Such interviews may be performed with the use of assessment instruments, such as the SCID (Structured Interview Schedule for DSM-III-R) (32) or the ADIS-R (Anxiety Disorders Interview Schedule-Revised). Unfortunately, such comprehensive assessment usually requires a considerable

amount of time, which is not always available during crisis situations. Some abridged versions have been developed in recent studies in order to provide a more expedient method of assessment in crisis situations, for example, the Upjohn version of the SCID (SCID-UP-R) (32, 33).

It is recommended that a brief clinical interview be conducted that includes an excerpt from the panic section of the ADIS-R and screening questions that elicit the individual's medical history (particularly cardiac or seizure disorders) along with all medication currently in use.

Some of the briefer diagnostic questionnaires may also help to pinpoint specific symptoms and to support information that has been obtained from the patient verbally. Such quick screening questionnaires include: the Beck Anxiety Inventory (BAI) (34), the Body Sensations Questionnaire (BSQ) (35), the Anxiety Sensitivity Index (ASI) (35), and the Zung Anxiety Scale (36), any of which can be completed in a matter of minutes. In addition, Table I includes some of the more important questions to ask during crisis situations:

Because much of the cognitive-behavioral literature stresses the importance of relating symptoms to the misinterpretation of interoceptive cues and catastrophic cognitions (25, 26, 37-41), a formal system for linking panic symptoms to thoughts and emotional-behavioral responses is essential. A recently developed assessment technique, known as the SAEB system (Symptoms-Automatic Thoughts-Emotions-Behavior), is recom-

Table I. QUESTIONS FOR CRISIS INTERVENTION

---

1. Have you recently adjusted, discontinued or changed any medications either prescription or nonprescription?
  2. Have you experienced any recent illness, deaths, change in relationship, job, financial situation in the past 6 months?
  3. Have you recently experienced child birth, surgery or change in menstrual pattern?
  4. Has anyone in your immediate family or family of origin experienced similar symptoms such as these?
  5. Have you recently commenced or discontinued any use of tobacco, drug or alcohol?
  6. Do you have any history of medical disorders, such as hypoglycemia, cardiac abnormalities, seizure disorder, etc.?
  7. Do you have any history of experiencing these types of symptoms in the past?
  8. Are you currently using stimulant/diet drugs, such as crank, speed, cocaine, crack, etc.?
-

mended as an approach for helping panic sufferers recognize the link between their panic symptoms and their catastrophic responses to their initial bodily sensations in an emergency situation (39-43).

The unique design of the SAEB system allows the treating clinician to align specific catastrophic thoughts and misinterpretations of symptoms with the onset of subsequent symptoms in a quick, expedient fashion. The system thus allows the panic victim to see the connections between stages of the escalation process setting the stage for the next step, which involves the treatment intervention (Figure 1).

This system is applied by having patients identify the beginning symptom of the panic episode. If the individual has experienced more than one attack, it lends more credence to the repetitive sequence of each attack. For example; in Figure 1, a "spontaneous increase in heart rate" is often the initial symptom experienced by individuals at the onset of an attack.

**SAEB: PANIC SEQUENCE**

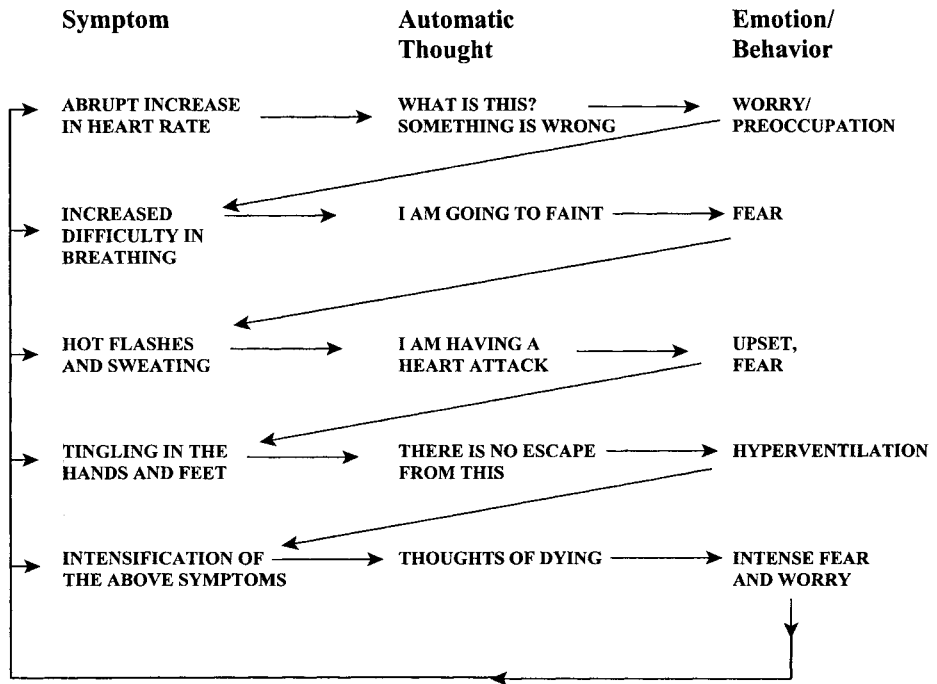


Figure 1.

SAEB: PANIC SEQUENCE

This can be followed by "difficulty breathing" and subsequently by "hot flashes and sweating" and so on. Once the symptoms have been aligned, the automatic thoughts accompanying each symptom are indicated along with the associated emotion and behavior. Vectors are then drawn in order to demonstrate to the patient in a collaborative fashion how the catastrophic thought content may be in reaction to the autonomic symptoms experienced and how these thoughts contribute to the subsequent behavior and possibly to the subsequent escalation of the symptoms (39). This technique is demonstrated in detail in a previously published videotape (44) as well as in Dattilio and Salas-Auvert (14).

This SAEB system sets the stage for the implementation of several cognitive-behavioral treatment interventions that will be explained later in this article. It is recommended as a quick method of assessment for tracking the cognitive, affective, behavioral, and physiological sequence of panic. Pinpointing specific triggers of panic symptoms is another important aspect of assessment that has been emphasized in the literature (e.g., stress; hot, humid climates; and excessive exercise) (24,43). While the use of the SAEB system may be effective in obtaining the aforementioned goals, there is the possibility of placebo effects that may play a role in the temporary amelioration of symptoms. This is why the use of the technique should be followed by continual exposure to interoceptive cues.

#### CRISIS INTERVENTION TECHNIQUES

There has been a great deal of professional literature that has focused on the use of various techniques and their effectiveness in treating panic and anxiety disorders (14, 25, 45). Specifically, exposure-based treatments have been quite successful in reducing panic (45, 46), particularly when used in concert with pharmacological interventions (47). Cognitive-behavioral treatments focusing on panic control through education, cognitive restructuring, interoceptive exposure, and breathing retraining have been reported in some cases to show success within a group format (48). Even psychodynamic techniques have been revised to address short-term crisis situations (49, 50), however, little empirical literature is available to support their effectiveness. More recently, large didactic group approaches have been used in Scotland by White, Keenan and Brooks (51) to accommodate the large number of anxiety-disordered patients referred to primary-care services. The therapy sessions employ a combination of cognitive-behavioral techniques and elements of traditional group therapy with a psychoeducational self-help package. The goal is to turn individuals

into their own therapists, providing them with the education and skills necessary to recognize and overcome anxiety or panic.

Most recently, brief treatments of panic attacks in crisis situations have used exposure instruction with relative effectiveness (33). This specific treatment involves informing patients that the most effective way to reduce their fear is to confront the situation in which the attacks occur. Patients are advised to return to the situation as soon as possible after the interview and to wait until their anxiety decreases. Although this approach is an improvement upon the sole use of pharmacologic interventions, it still falls short of providing the individual with any specific set of coping techniques for dealing with future panic episodes. It also relies on extinction procedures and appears to require more time for reducing symptoms and may not always be practical depending on the circumstances in which the individual experienced the attack.

Several other cognitive-behavioral techniques can be added that may prove to be more satisfactory alternatives in the treatment of panic in crisis settings by providing the individual with specific coping mechanisms to apply during future episodes or attacks.

#### CONTROLLED BREATHING

Early studies on anxiety refer to the use of progressive muscle relaxation and controlled breathing as well as carbon dioxide inhalation (52). These techniques are based on the premise that a state of relaxation and a state of anxiety cannot coexist and are viewed by some as being all that is necessary to put a stop to recurrent panic attacks (29).

The concept of controlled breathing is an offshoot of the hyperventilation hypothesis mentioned previously, which contends that individuals commonly hyperventilate prior to panicking. Individuals who hyperventilate tend to breathe through their mouth, taking short shallow breaths of air or sighing frequently. Diaphragmatic breathing is one form of breathing retraining for counteracting hyperventilation. In it, individuals are instructed to breathe through their nose normally and to count the number of breaths while at rest, slowing the frequency to 9 to 16 times per minute. They are also told to place both hands over the abdomen while breathing, noticing the movement of the diaphragm. Individuals are instructed to practice this breathing exercise during both panic and nonpanic periods (53).

If during a severe panic attack, the diaphragmatic method does not enable the individual to obtain a full breath, which is often the case, breathing into a paper bag or cupped hands may be used in order to



increase the level of carbon dioxide (39). An alternative is to exhale through the mouth as much as possible and then slowly inhale through the nose, repeating the process several times. While practicing these techniques, distraction may be used to divert one's attention from the panic symptoms to enhance the positive effects of the breathing exercise.

#### SYMPTOM INDUCTION AND DEESCALATION

The cognitive-behavioral model of panic contends that, individuals' misinterpretations of bodily sensations play an integral role in the escalation of panic symptoms. Consequently, such misinterpretations can be responsible for maintaining the vicious panic cycle (24, 26, 38, 54). During this period of vulnerability, individuals tend to overestimate perceived danger and to underestimate their capacity for coping (38, 39, 55).

In symptom induction, clients are presented with a therapeutic exercise whereby they are instructed to follow the therapist in taking short successive breaths of air, inhaling and exhaling, for approximately two to three minutes. This procedure serves to reproduce the symptoms of panic by activating the autonomic nervous system and disrupting the balance of oxygen and carbon dioxide levels, sometimes causing hyperventilation as well (39). Symptom induction allows the therapist to obtain a direct report of the client's thought processes as the attack develops and to assist the client first-hand in controlling the attack through progressive breathing and thought restructuring. The goal here is to reproduce the type of situation that may precipitate an attack and then show the client that he or she can "turn on" as well as "turn off" the attacks.

Once the symptoms have been induced, the therapist records the sequence of events that have occurred, paying particular attention to the specific symptoms, the automatic thoughts that occurred, and the resulting emotional reaction. Figure 1 provides an example of how to track the patient's panic sequence during an attack. In response to the initial symptom, spontaneous increase in heart rate, the automatic thought is overreactive in the sense that it is assumed that "something is wrong" or that the client "could faint."

It is essential that all clients who are candidates for this technique receive medical clearance prior to the exercise in order to ensure that the technique is not contraindicated by an existing medical condition. The therapist can then begin to intervene with the deescalation techniques by collaboratively focusing with the client on the initial symptoms.

In the case presented in Figure 1, a spontaneous increase in heart rate followed by the thought, "Something is wrong" or "I'm going to faint,"

translated into increased fear. By identifying the early onset of symptoms in the panic cycle, the therapist can aid patients in the deescalation of symptoms. This is done by having patients downplay the severity of the symptoms by altering their misinterpretations. For example, the individual in Figure 1 had developed a pattern of responding to increased heart rate by perceiving it as dangerous and a sure sign that "Something is wrong." In having clients restructure their thoughts, they are asked to consider an alternative response that may involve a less catastrophic implication. For instance, "Just because I have an increase in heart rate doesn't mean that this is necessarily dangerous or that something is wrong. It is perhaps just benign autonomic activity that will last for a limited time." This cognitive response is then supported by having the client log each attack and review the log for reassurance that since nothing dangerous has occurred in the past, it is unlikely to occur in the future. Patients are then taught controlled breathing in order to regulate their oxygen-intake level and reduce autonomic activity.

The purpose of this type of restructuring is to lessen the likelihood that the individual's automatic thoughts are fueling the subsequent increase in symptoms and emotional reaction and to persuade them that their fear ("I might faint") is unsubstantiated. This point can be affirmed with cognitive correction via factual information (e.g., in order to faint, one must experience a decrease in blood pressure; blood pressure increases with increased heart rate and anxiety). In addition, this serves to improve the patient's perceived sense of bodily control which reduces the intensity of threat and danger.

This type of thought correction is followed throughout the entire panic cycle and then reinforced by virtue of reexposure to symptoms through the use of the panic-induction exercise. It is the combination of the artificial induction of symptoms (e.g., purposely increasing heart rate), as well as the reinterpretation of these symptoms, (e.g., it will not hurt me), deescalation of the catastrophic thoughts, (e.g., this will not last forever), and eventual reduction of symptom severity, that makes the technique effective. In addition, follow-through on having clients expose themselves to real-life situations is also an important component of treatment so that the ability to generalize the techniques to a variety of situations can develop.

This technique is usually well received by panic sufferers, particularly after they have overcome their initial apprehension about raising their autonomic activity level. With those clients who sometimes do not benefit from the intervention (e.g., they become too overwhelmed or are unable to increase their autonomic activity level), it is recommended that the same

technique of cognitive restructuring be used without the symptom-induction exercise.

#### PARADOXICAL INTENTION

Paradoxical intention, originally developed by Frankl (56), is much like symptom induction in that it involves a behavioral prescription for clients to perform responses that seem incompatible with the goal for which they are seeking help. The specific difference, however, is that in paradoxical intention, patients are asked to exaggerate their anticipations rather than behaviorally induce the symptoms by deliberately hyperventilating. For example, individuals who experience panic attacks and fear that they may die suddenly or become "overwhelmed" would be instructed to "go ahead and let themselves die" or do whatever they fear they might do (38). After several attempts, they often discover that they are unable to achieve the feared response, and their anxiety then diminishes. At this point, many patients are able to perceive the ridiculous or irrational aspect of their apprehensions; which is an awareness strongly encouraged by the therapist. They are then instructed to repeat this same procedure in selected settings at graded levels of panic-evoking situations until they experience few or no symptoms. This technique also differs from symptom induction and deescalation in that there is no deescalation of symptoms and no instruction in the use of controlled breathing as an anxiety-reducing agent. In fact, it poses the opposite approach to the patient with the reliance on the paradoxical focus itself as the trigger in reducing anxiety (14, 38, 41).

Paradoxical intention may be recommended for individuals who experience relaxation-induced anxiety (57), for which many of the more traditional anxiety-reducing techniques are less effective. Such side effects as tingling, numbness, dizziness, paradoxical increases in tension, increased heart rate, and other untoward reactions have been reported with relaxation-based treatment (58, 59). Relaxation techniques may at times even evoke seizure activity or traumatic memories, which may undermine the intention of the treatment (60).

Paradoxical intention would also be recommended in patients who appear resistant to techniques that involve actual symptom induction, as well as patients with a history of cardiovascular disorders. Even though paradoxical intention encourages the symptoms to worsen, there is no direct induction of symptoms (e.g., overbreathing); thus, the likelihood of cardiovascular stress is reduced. It is, therefore, suggested as an alternative treatment when induction is contraindicated and when an expedient intervention is required as is the case with crisis situations.

Symptom induction, deescalation, breathing retraining and paradoxical intention are all nonpharmacologic techniques that may be applied for rapid amelioration of panic symptoms in emergency and crises situations. In combination with exposure and/or pharmacological interventions, these techniques may prove to be the most efficacious (20).

#### EYE-MOVEMENT DESENSITIZATION AND REPROCESSING

Shapiro and Forrest (61) propose a new method that has shown benefit in the treatment of traumatic memories and has recently been explored as a second-line intervention in panic disorder. This approach is referred to as Eye Movement Desensitization and Reprocessing (EMDR)(61).

Shapiro reports initially developing EMDR while working with some 70 people over the course of about six months, with refinements added over the past 10 years. Consequently, a standard procedure that evolved alleviated patients' complaints. Since the primary focus of EMDR was on reducing anxiety, this has become Shapiro's targeted population.

It was fairly recently that Goldstein and Feske (62) reported on the use of EMDR in the treatment of panic disorder. They initially selected seven panic-disordered subjects who were patients at anxiety-disorder clinics. The patients were treated with EMDR for memories of past and anticipated panic attacks and other anxiety-evoking memories of personal reference. Standardized report inventories and behavioral monitoring instruments were employed to measure changes with treatment. After only five sessions of EMDR, subjects reported a considerable decrease in the frequency of panic attacks, fear of experiencing a panic attack, general anxiety, fear of body sensations, depression, and other measures of pathology. These results sparked the authors' further investigation of the effectiveness of EMDR for panic.

In a subsequent study, the same authors (63) randomly assigned 43 outpatients diagnosed with panic disorder to six sessions of EMDR. A control group was assigned to the same treatment, but with the omission of the eye movement and with a waiting list. Posttest comparisons showed EMDR to be more effective in alleviating panic and panic-related symptoms than the waiting-list procedure. Compared with the same treatment without the eye movement, EMDR led to a greater improvement on two of five primary outcome measures at posttest. EMDR's advantages had dissipated three months after treatment. Consequently, this study fails to support the eye-movement component of the treatment of panic disorder (63). Subsequent studies involving randomized controlled trials also sug-

gest that EMDR should not be the first-line treatment for panic, but may be used as an alternative treatment (64).

#### COMBINED TREATMENTS

The combination of cognitive-behavioral techniques and pharmacologic agents has been most successful in treating panic disorder. When pharmacologic agents are used in conjunction with nonpharmacologic techniques, it is recommended that a multicomponent treatment package be used, such as the one described by Creske and Barlow (65). This program consists of four major components: 1. education and corrective information concerning the nature, etiology and maintenance of panic; 2. cognitive therapy techniques aimed at helping the patient identify, monitor and alter faulty appraisals of threat that contribute to panic occurrence; 3. framing-in methods of slow diaphragmatic breathing as a way of reducing or eliminating physical symptoms that often trigger panic attacks; and 4. interoceptive exposure exercises designed to reduce patients' fear of somatic sensations through repeated exposure to feared bodily sensations. It is suggested that it might also apply to emergency settings as well.

#### BIBLIOTHERAPY

One of the adjunct techniques that has been found to be helpful with anxiety-disordered individuals is the use of bibliotherapy (66, 67). There are a number of excellent self-help books available on the market for panic sufferers, among them, *Don't Panic* (68) and *Coping with Panic* (69). Both of these books have been written by professionals skilled in the cognitive-behavior therapies and are fine supplemental reading and supportive aids to many of the techniques described in this paper. Individuals should be directed to read these books as they are receiving treatment and may even benefit from them subsequent to the termination of therapy. For a more comprehensive listing of self-help books along with annotation, the reader is referred to Dattilio and Salas-Auvert (14).

#### HOMEWORK

Homework is a very important aspect of cognitive-behavioral treatment of panic. Many of the coping skills that are taught require practice in order to become part of the individual's work repertoire of skills. Such homework assignments, as the practicing of breathing exercises and cognitive coping skills, are necessary to learn how to respond effectively when a spontaneous panic attack occurs.

Recording information on such forms as the "Panic Diary," which was developed by Dattilio and is preprinted in Dattilio and Salas-Auvert (14),

is also vital in allowing both the patient and the therapist to track the occurrence and progress of treatment.

Finally, homework is also a prelude to the eventual coping skills that will be used in relapse prevention. Whereas homework assignments vary during the course of treatment, typical assignments may include methods of progressive muscle-relaxation training, breathing exercises, practicing challenging automatic-thought statements during periods of automatic activity, self-exposure to stimuli that may cause automatic arousal, and/or recording catastrophic thought statements.

#### RELAPSE PREVENTION

Panic relapse after treatment occurs in the majority of cases as a result of the discontinuation of skills practice and poor follow-up in therapy. In fact, patients often end treatment abruptly because their symptoms have subsided.

It is essential that patients contract with the therapist to complete their treatment and include all of the follow-up visits. The follow-up visits should focus on a skills check and anticipation of the use of techniques in the event of a spontaneous recurrence of panic symptoms. Other issues that should be addressed are psychosocial and internal stressors that may serve to trigger panic.

Finally, it is also recommended that patients be instructed not to delay in contacting the therapist for booster sessions when they are experiencing difficulty coping on their own. It is often the extreme delay that facilitates the return of the panic cycle in full force.

#### SUPPORT GROUPS

A distinction must be made between group psychotherapy and support groups. Support groups typically are groups of individuals who have been through treatment and need to rely on group meetings as booster sessions. These groups usually are conducted by a trained professional or a para-professional and are designed primarily to support patients in utilizing what they have learned in the course of treatment. Although such problems as backsliding and stumbling blocks are often discussed, emphasis is placed on a support system as opposed to any specific intervention or treatment (14).

Group support systems are recommended for individuals who have had serious relapses, but only after they have reentered treatment. Some support groups may also involve the spouse or other relatives of a person with panic disorder. These can be very helpful to family members in their struggle to understand panic.

It is important to remember that support groups are not a substitute for effective treatment, but are designed to complement treatment.

#### FAMILY/SPOUSAL SUPPORT

Even though panic is an individualized disorder, it undoubtedly has a ripple effect on the others directly related to the patient. Follow-up family and group support is an essential part of treatment and relapse prevention. Much of the professional literature supports the concept of educating spouses and family members to the treatment of panic and contributing to their understanding of why and how the disorder develops (45). What is more, it is important for treating clinicians to coach spouses and immediate family members on their roles in the treatment process.

Spouses are often trained by the treating clinician on how to guide their partners through difficult periods, as well as how to support the recovery process in general. Clinicians can and should take the opportunity to address any relationship issues that may be contributing to the panic cycle (e.g., overprotectiveness, dependency) and assess the need for further conjoint therapy.

#### CONCLUSION

The treatment of panic in crises settings is ripe for the application of treatment interventions that build upon coping skills. The techniques proposed in this article are suggested as adjuncts and alternatives to the sole reliance on pharmacotherapy in treating panic in crisis settings. Such techniques may prove to be most efficacious when used in conjunction with pharmacotherapy (67, 70, 71).

It is recommended that the techniques described in this article be considered prior to the use of pharmacologic agents whenever possible. Medication may serve as an adjunct to psychotherapy rather than the reverse. Continued research in this area is certainly warranted.

#### REFERENCES

1. Wayne GJ (1966). The psychiatric emergency: An overview. In G. J. Wayne and R. R. Koegler (Eds.), *Emergency psychiatric and brief therapy*. Boston: Little, Brown.
2. Goldenberg H (1983). *Contemporary clinical psychology*. Monterey, CA: Brooks/Cole.
3. Von Korff M, Shapiro S, Burke JD, et al. (1987). Anxiety and depression in a primary care clinic: Comparison of diagnostic interview schedule, general health questionnaire, and practitioner assessments. *Archives of General Psychiatry*, 44, 152-156.
4. Dattilio FM, & Salas-Auvert JA (1999). Heart attack or panic attack? *ADAA Reporter*, X(3), 1-3.
5. Regier DA, Boyd JH, Burke JD, et al. (1988). One-month prevalence of mental disorders in the United States: Based on five epidemiologic catchment area sites. *Archives of General Psychiatry*, 45, 977-986.
6. American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders IV*, Fourth Edition. Washington, DC: APA.

7. Dattilio FM, & Freeman A (2000) (Eds.). *Cognitive-behavioral strategies in crisis intervention* (2<sup>nd</sup> ed.). New York: Guilford.
8. Kocmur M, & Zavasnik A (1991). Patients' experience of the therapeutic process in a crises intervention unit. *Crises*, (April) Vol. 12(1), 69-81.
9. Aguilera DC (1990). *Crises intervention: Theory and methodology*, St. Louis, MO: C. V. Mosby Co.
10. Roberts AR (Ed.) (1990). *Crises intervention handbook: Assessment, treatment and research*. Belmont, CA: Wadsworth.
11. Diez C, Gastó C, & Vallejo J (1989). Desarrollo de conductas de evitación en un sujeto con crisis de angustia atípicas. Development of avoidance behavior in a subject with crises of atypical anxiety. *Revista de Psiquiatría de la Facultad de Medicina de Barcelona*, 16, 329-332.
12. Aronson TA, & Logue CM (1988). Phenomenology of panic attacks: A descriptive study of panic disorder patients' self-reports. *Journal of Clinical Psychiatry*, 49,8-13.
13. Dattilio FM, & Kendall PC (1994). Panic disorder. In F. M. Dattilio & A. Freeman (Eds.) *Cognitive-behavior strategies in crisis intervention* (46-66). New York: Guilford.
14. Dattilio FM, & Salas-Auvert JA (2000). *Panic disorder: Assessment and treatment through a wide-angle lens*. Phoenix, AZ: Zeig/Tucker, Co.
15. Gray JA (1974). *The neuropsychology of anxiety*. Oxford: Clarendon.
16. Svensson TH. (1987). Peripheral, autonomic regulation of locus coeruleus noradrenergic neurons in brain: Putative implications for psychiatry and psychopharmacology. *Psychopharmacology*, 92, 1-7.
17. Charney DS, Heninger GR, & Beier A (1984). Noradrenergic function of panic anxiety: Effects of yohimbine in healthy subjects and patients with agoraphobia and panic disorder. *Archives of General Psychiatry*, 41, 751-763.
18. Skolnick P, & Paul SM (1983). New concepts in the neurobiology of anxiety. *Journal of Clinical Psychiatry*, 44, 12-19.
19. Bradwejn J, Koszycki D, Payeur R, et al. (1992). Replication of action of cholecystokinin tetrapeptide in panic disorder: Clinical and behavioral findings. *American Journal of Psychiatry*, 149, 962-964.
20. Sheehan DV (1982). Panic attacks and phobias. *New England Journal of Medicine*, 307, 156-158.
21. Brown CS, Rakel RE, Well BG, et al (1991). A practical update on anxiety disorders and their pharmacologic treatment. *Archives of Internal Medicine*, 151, 873-884.
22. Kendall PC A, & Hammen R (1999). *Abnormal psychology*. Boston: Houghton-Mifflin (p. 180).
23. Katon W (1992). *Panic disorder in the medical setting*. Rockville, MD: NIMH Publication.
24. Katon W, & Kleinman AM (1980). Doctor-patient negotiation and other social science strategies in patient care. In L. Eisenberg and A. M. Kleinman (Eds.). *The relevance of social science for medicine* (pp. 253-259). Datrecht, Holland: D. Reidel.
25. Beck AT, Emery G, & Greenberg RL (1985). *Anxiety disorders and phobias*. New York: Guilford.
26. Dattilio FM (1986). Differences in cognitive responses to fear among individuals diagnosed as panic disorder, generalized anxiety disorder, agoraphobia with panic attacks and simple phobia (Doctoral Dissertation, Temple University). *Dissertation Abstracts International*, 48, O3A.
27. Ottaviani R, & Beck AT (1987). Cognitive aspects of panic disorders. *Journal of Anxiety Disorders*, 1, 15-28.
28. Ley RA (1985). Blood, breath and fears: A hyperventilation theory of panic attacks and agoraphobia. *Clinical Psychology Review*, 5, 271-285.
29. Clark DM (1986). A cognitive approach to panic. *Behavior Research and Therapy*. 24, 461-470.
30. Clark DM, Salkovskis PM, & Chalkley AJ (1985). Respiratory control as a treatment for panic attacks. *Journal of Behavior Therapy & Experimental Psychiatry*, 16, 23-30.
31. Borden JW, Clum GA, & Salmon PG (1991). Mechanisms of change in the treatment of panic. *Cognitive Therapy & Research*, 15, 257-272.
32. Spitzer RL, & Williams JBW (1986). *Structured clinical interview for DSM-III-R, UpJohn version (SCID-UP-R)*. New York, New York State Psychiatric Institute, Biometrics Research.
33. Swinson RP, Soulios C, Cox BJ, & Kuch K (1992). Brief treatment of emergency room patients with panic attacks. *American Journal of Psychiatry*, 149, 944-946.
34. Beck AT (1987). *Anxiety inventory*. Philadelphia, PA: Center for Cognitive Therapy.
35. Chambless DL, Caputo GC, Bright P, & Gallagher R (1984). Assessment of fear of fear in agoraphobia: The body sensations questionnaire and the agoraphobic questionnaire. *Journal of Consulting and Clinical Psychology*, 52, 1090-1097.



36. Zung WWK (1975). A rating instrument for anxiety disorders. *Psychosomatics*, 12, 371-379.
37. Alford BA, Beck AT, Freeman A, & Wright F (1990). Brief Focused Cognitive Therapy of Panic Disorder. *Psychotherapy*, 27, 230-234.
38. Dattilio FM (1987). The use of paradoxical intention in the treatment of panic attacks. *Journal of Counseling & Development*, 66, 66-67.
39. Dattilio FM (1990). Symptom induction and de-escalation in the treatment of panic attacks. *Journal of Mental Health Counseling*, 12, 515-519.
40. Dattilio FM (1992). Interoceptive sensations during sexual arousal and panic. *The Behavior Therapist*, 15, 231-233.
41. Dattilio FM (1994). SAEB: A method of conceptualization in the treatment of panic. *Cognitive and Behavioral Practice*, 1, 179-191.
42. Dattilio FM (1992). "The SAEB System"—Crises intervention techniques with panic. Symposium on crisis intervention presented at the 26th Annual Association for the Advancement of Behavior Therapy (AABT), Boston, MA.
43. Dattilio FM, & Berchick RM (1992). Panic disorder with agoraphobia. In A. Freeman and F.M. Dattilio (Eds.), *Comprehensive casebook of cognitive therapy* (pp. 89-98). New York: Plenum.
44. Dattilio FM (1994b). Videotape: The use of the SAEB System and Symptom Induction in the Treatment of Panic. Sarasota, FL: Professional Resource Press, 58 minutes.
45. Barlow DH (1988). *Anxiety and its disorders*. New York: Guilford.
46. Clark DM, & Ehlers A (1993). An overview of the theory and treatment of panic. *Applied and Preventive Psychology*, 2, 131-139.
47. Zitrin CM, Klein DF, & Woerner MG (1978). Behavior therapy, supportive psychotherapy, imipramine and phobias. *Archives of General Psychiatry*, 35, 107-116.
48. Telch MJ, Lucas JA, Schmidt NB, et al. (1993). Group cognitive-behavioral treatment of panic disorder. *Behavior Research and Therapy* 31, 279-287.
49. Milrod B, Busch F, Cooper A, & Shapiro T (1997). *Manual of panic-focused psychodynamic psychotherapy*. Washington, DC: American Psychiatric Press.
50. Davanloo H (1990). *Unlocking the unconscious*. Chichester, England: Wiley.
51. White J, Keenan M, & Brooks N (1992). Stress control: A controlled comparative investigation of large group therapy for generalized anxiety disorder. *Behavioral Psychotherapy*, 20, 97-114.
52. Wolpe J (1958). *Psychotherapy by reciprocal inhibition*. Stanford, CA: Stanford University Press.
53. Clum GA (1990). *Coping with panic*. Pacific Grove, CA: Brooks/Cole.
54. Argyle N (1988). The nature of cognitions in panic disorder. *Behavior Research and Therapy*, 26, 261-264.
55. Greenberg RL (1989). Panic disorder and agoraphobia. In J. Scott, J. M. G. Williams and A. T. Beck (Eds.), *Cognitive therapy in clinical practice: An illustrative casebook* (pp. 25-49). London: Routledge and Kegan Paul.
56. Frankl VE (1984). Paradoxical intention. In G. R. Weeks (Ed.), *Promoting change through paradoxical therapy*. Homewood, IL: Dow Jones-Irwin.
57. Lazarus AA, & Mayne TJ (1990). Relaxation: Some limitations, side effects and proposed solutions. *Psychotherapy*, 27, 261-266.
58. Borkovec TD, & Grayson JB (1980). Consequences of increasing the functional impact of emotional stimuli. In K. Blankstein, P. Pliner & J. Polivy (Eds.), *Assessment and modification of emotional behavior*. New York: Plenum.
59. Edinger JD, & Jacobsen R (1982). Incidence and significance of relaxation treatment side effects. *The Behavior Therapist*, 5, 137-138.
60. Kiselica MS, & Baker SB (1992). Progressive muscle relaxation and cognitive restructuring: Potential problems and proposed solutions. *Journal of Mental Health Counseling*, 14, 149-165.
61. Shapiro F, & Forrest MS. (1997). *EMDR: The breakthrough therapy*. New York: Basic Books.
62. Goldstein AJ, & Feske U (1994). Eye movement desensitization and reprocessing for panic disorder: A case series. *Journal of Anxiety Disorders*, 8, 351-362.
63. Feske U, & Goldstein AJ (1997). Eye movement desensitization and reprocessing treatment for panic disorder: A controlled and partial dismantling study. *Journal of Consulting and Clinical Psychotherapy*, 65, 1-10.
64. Goldstein, AJ, deBeurs E, Chambless DL, & Wilson KA (2000). EMDR for panic disorder with agoraphobia: Comparison with waiting list and credible attention placebo control conditions. *Journal of Consulting and Clinical Psychology*, 68, 947-956.

65. Creske MG, & Barlow DH (1990). Therapist guide for the mastery of anxiety and panic. University of Albany, State University of New York: Center for Stress & Anxiety Disorders.
66. Gould RA, Clum GA, & Shapiro D (1993). The use of bibliotherapy in the treatment of panic: A preliminary investigation. *Behavior Therapy*, 24, 241-252.
67. Lindrin DM, Watkins P, Gould RA, et al. (1994). A comparison of bibliotherapy and group therapy in the treatment of panic disorder. *Journal of Counseling and Clinical Psychology*, 62, 865-869.
68. Wilson R (1986). *Don't panic: Taking control of anxiety attacks*. New York: Rawson.
69. Clum GA (1990). *Coping with panic*. Pacific Grove, CA: Brooks/Cole.
70. Sharp DM, Power KG, & Simpson RJ (1996). Fluvoxamine, placebo, and cognitive behaviour therapy used alone and in combination in the treatment of panic disorder and agoraphobia. *Journal of Anxiety Disorder*, 10, 219-242.
71. Barlow DH, Gorman JM, Shear MK, & Woods SW (2000). Cognitive-behavior therapy, imipramine, or the combination for panic disorder: A randomized controlled trial. *The Journal of the American Medical Association*, 283, 2529-2536.