**Exposure Treatment for PTSD**

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**Description of the Disorder:**

Post-traumatic stress disorder (PTSD) is an anxiety disorder. It is characterized by the following symptoms:

- Re-experiencing the trauma that occurred through flashbacks or nightmares
- Feeling free of any emotions and avoiding things related to the trauma
- Increased arousal like problems with sleeping and reacting in fearful ways to things

About 9% to 12% of the general population has PTSD. According to previous studies, about 60-90% of individuals in the US have experienced at least one traumatic event in their lifetimes. Not all people who have a traumatic event get PTSD. Once PTSD does occur, however, it is unlikely to go away without treatment.

**Treatment Comparison:**

In the treatment guidelines developed by the International Society for Traumatic Stress Studies, exposure therapy was named as the best therapy for PTSD. Exposure therapy has consistently been shown to be more effective than no treatment controls. It also has been shown superior to supportive counseling for PTSD symptoms. Studies have revealed that it has been shown to be at least equally effective as cognitive therapy, stress inoculation training, cognitive processing therapy, and eye movement desensitization and reprocessing in many well-controlled investigations. In several studies, advantages of exposure therapy over these other techniques emerged. Exposure therapy has not been compared to medications in a controlled study. However, one study did find that exposure therapy augmented treatment with medication, especially for weaker medication responders. Most studies have found that gains are maintained and sometimes increase at follow-up, resulting in an average of 60 to 80% reduction in PTSD symptom severity.

**Treatment Description:**

Exposure therapy for anxiety disorders comprises a set of techniques designed to help patients confront their feared objects, situations, memories, and images in a therapeutic manner. With PTSD, commonly the core components of exposure programs are imaginal exposure, i.e., repeated recounting of the traumatic memory, and in vivo exposure, i.e., repeated confrontation with trauma-related situations and objects that evoke excessive anxiety.
Exposure therapy, also referred to as flooding, imaginal, in vivo, prolonged, or directed exposure, is a well-established treatment for PTSD that requires the patient to focus on and describe the details of a traumatic experience in a therapeutic manner. Exposure methods share the common feature of confrontation with frightening, yet realistically safe, stimuli that continues until the anxiety is reduced. The rationale for exposure therapy is that by continuing to expose oneself to a safe yet frightening stimulus, anxiety diminishes, leading to a decrease in escape and avoidance behavior. Habituation, or decreased responding to the same stimulus when presented repeatedly over time, is one of the simplest and most straightforward mechanisms accounting for this reduction in anxiety.

Prolonged exposure treatment typically consists of 9 - 12 individual sessions. Typically, the first two sessions are devoted to information gathering, explaining the treatment rationale, and treatment planning, including the construction of a hierarchy of feared situations for in vivo exposure. In vivo exposure involves actually confronting realistically safe situations, places, or objects repeatedly that are reminders of the trauma until they no longer elicit such strong emotions. During the remaining sessions, survivors are instructed to relive, in their imagination, the traumatic experiences, describing it aloud “as if it were happening now”. Exposure continues for about 60 minutes and is tape-recorded so that survivors can practice imaginal exposure as homework by listening to the tape. Following the imaginal exposure in each session, the material that comes up in the exposure is discussed or “processed”. Typically, these include themes of guilt, shame, fear, and responsibility. Patients are given homework assignments, instructing them to practice imaginal exposure with the tapes made in the session and to approach feared situations or objects that are realistically safe but that evoke anxiety because of their association with the trauma, called in vivo (or “in real life”) exposure.

A new medium for conducting exposure therapy has been introduced. Virtual Reality Exposure (VRE) presents the user with a computer-generated view of a virtual world that changes in a natural way with head motion. For Vietnam veterans with PTSD, patients wear a head-mounted display with stereo earphones that provide visual and audio cues consistent with being in a “Virtual Vietnam.” Patients have been exposed to two virtual environments, a virtual Huey helicopter flying over a virtual Vietnam and a clearing surrounded by jungle. In this way, patients are repeatedly exposed to their most traumatic memories but immersed in Vietnam stimuli.

As noted above, there are several variants of exposure. In imaginal exposure, the clients confront their memories of the traumatic event. The idea behind this type of treatment is that the trauma needs to be emotionally processed, or digested, so that it can become less painful. Many survivors with PTSD mistakenly view the process of remembering their trauma as dangerous and therefore devote much effort to avoiding thinking about or processing the trauma. Imaginal reliving serves to disconfirm this mistaken belief. Some imaginal methods involve the patient’s discussing the trauma in detail in the present tense for prolonged periods of time (e.g., 45 to 60 minutes), with prompting by the therapist for any omitted details. Other forms of imaginal exposure
involve the therapist’s presenting a scene to the patient based on information gathered
prior to the exposure exercise. Most exposure treatments do not consist solely of
exposure, but include other components such as psychoeducation or relaxation training.
The treatments that combine such components typically include vastly more time on
exposure than on these other components, which are often presented as preliminary
ways of building up to the exposure.

Frequently, important guidelines for exposure have been overlooked. Patients should
remain in the exposure situation long enough for their anxiety and distress to decrease.
Initially, a certain amount of distress should be expected and normalized for the patient.
Because the trauma memory itself is not dangerous, trauma-related affect will diminish
if given the chance. The hope is that clients will learn that they do not need to fear their
trauma memories. The therapist’s job is to help the patient “ride out” the anxiety in a
safe environment until it is significantly diminished and/or eliminated. While it is
necessary for effective treatment for exposures to be long enough, repeated enough,
and detailed enough, it is essential to go at the patient’s pace. This is especially true in
the first exposure when the patient is likely to be experiencing high levels of affect.
Pushing the patient for details should be avoided in the first exposure. Individuals differ
in their speed of habituation and response to anxiety-provoking situations, and these
differences must be taken into account. Sufficient time to allow for habituation is
essential prior to proceeding to a new trauma memory or to the next level of the
hierarchy (for in vivo exposure). The therapist should encourage the patient to use as
much detail as possible, especially for the worst parts of the trauma. Avoidance can be
quite direct, but frequently may be amazingly subtle. Patients may go through the
motions of exposure, but distance themselves emotionally, describing the trauma in a
flat, matter-of-fact fashion. Many trauma survivors have learned to dissociate as a form
of avoidance, and may not even realize that they are detaching from the trauma
memory. In this situation, the therapist can try to engage the patient in the memory in a
gentle manner. This can sometimes be accomplished by prompting for more details
(“where are you standing as he attacks?”), asking about emotions and thoughts during
the trauma (“what are you feeling as he says that?”), and probing for sensory memories
(“can you smell him?”). Anything that makes the memory more vivid may help patients
to engage emotionally. During the preparation stages before exposure begins, it is
crucial to encourage patients to allow themselves to feel those emotions and answer
any fears about what will happen if they do so. After the exposure is over, it is also
important to reinforce this message, and praise their efforts to engage in trauma-related
emotions.

Clinicians may fear that exposure can only be used with individuals who are healthy and
stable and that it cannot be used with the typical trauma survivor who is complex and
fragile. In fact, it is rare to find a PTSD patient with just PTSD as the majority have other
comorbid conditions. As with most outpatient treatments of trauma, care must be taken
with patients who are imminently suicidal, psychotic, or who have a history of psychotic
decompression. There have been no studies of any trauma-focused therapy with
these populations. Therapists must switch from trauma therapy to crisis management
and containment when a patient becomes actively suicidal. At the same time, however,
many PTSD clinical researchers have successfully treated trauma patients with a
history of multiple psychiatric hospitalizations, multiple suicide attempts, dissociation,
treatment resistance to other therapeutic interventions, borderline intelligence, mild
brain injuries, and comorbid disorders, such as depression, panic disorder, and
substance abuse.

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Dr. Rothbaum is also a pioneer in the application of virtual reality to the treatment of
psychological disorders.