

# In vivo exposure in behavioral therapy



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According to Corey, In vivo exposure is a type of behavioral therapy in which the client is exposed to their feared object or situation in “real life” with no danger involved. Throughout the exposure process the therapist comforts the client in order to reduce their anxiety. Unlike flooding, exposure therapies differ in that they don’t start at the highest level of fear (Corey, 2009, 247). According to Corey one of the hallmarks of in vivo exposure is its graded method of exposure, he states “Together the therapist and the client generate a hierarchy of situations for the client to encounter in ascending order of difficulty” (247). The client is given a measured exposure to stimuli that becomes progressively stronger until habituation is reached. If the client begins to feel too anxious then they can stop the exposure. They also learn to deal with their fear through response techniques such as relaxation. The goal of in vivo exposure is for the client to learn how to cope with and overcome their fear response, to act in a non-phobic way. In vivo exposure can be both with a therapist or self-directed (when the client exposes themselves independently to their feared object) (247).

A study by Murphy, Michelson, Marchione, Marchione, and Testa (1995) examined self-directed in vivo exposure in the treatment of seventy-four patients experiencing panic disorder with agoraphobia (117). The patients were randomly divided into three groups with one group learning relaxation techniques and exposure, one group receiving Cognitive and exposure therapy, and one group receiving only exposure therapy (118). At the end of the study all of the patients were taught techniques for self-directed exposure.

The study found that clients who engaged more frequently in self-directed exposure rated their anxiety as less severe anxiety during follow up (Murphy, et al, 1995, 137, 138).

A study by Nelissen, Muris and Merkelbach (1995) used virtual reality to examine the effects of exposure and in vivo treatment in two children with arachnophobia (153). At the beginning of the study the children were given a behavioral avoidance test. The children then received two different types of exposure; virtual exposure and vivo exposure where they actually interacted with a spider (154, 155). Nellissen, et al's (1995) found that the virtual exposure showed little to no success in reducing either child's anxiety towards spiders. However, the in vivo exposure proved to be very effective in reducing their fear with both children showing a marked improvement on the avoidance test (Nelissen, Muris and Merkelbach, 1995, 156) Not only has in vivo exposure played an important role in psychology, its influence has reached the medical community as well. A recent study by Woods and Asmundson (2008) examined the effect of psychological treatments, namely cognitive behavioral therapy, on patients with chronic pain (271, 272). Using the idea of fear avoidance in vivo therapy is based on, Woods and Asmundson suggested that chronic pain might be relieved by exposing patients to activities they previously avoided because of their fear of pain and injury. Using randomized, controlled trials forty four patients were divided into two groups. One group was given a hierarchical in vivo exposure and the other was given nothing (274, 275). The patients from the exposure group showed condition showed significant improvements on measures of fear of pain and activity and fear avoidance beliefs. They

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also demonstrated less pain catastrophising, and overall anxiety and depression than those in the control group. Furthermore the patients in the exposure group retained these behaviors at a follow-up one month later.

(Woods and Asmundson, 2008, 279, 280).

In vivo exposure is not only effective in treating anxiety, it's a proven treatment for PTSD as well. Taylor, et al (2003) studied the efficacy, speed, and effects of three various treatments for PTSD (330). The various treatments rated the same in the areas of symptom worsening and their effect on hyperarousal symptoms. However when compared with the other two therapies in the areas of re-experiencing of symptoms and avoidance, in vivo exposure showed significantly higher results. Exposure therapy also tended to work faster than the other treatments at reducing avoidance and tended to generate a greater number of patients who no longer met criteria for PTSD (337, 338).

Patients with obsessive compulsive disorder can also benefit from in vivo exposure therapy. A 12 week study by Simpson, et al (2004) looked to discover the effects of exposure therapy in 46 patients with OCD with or without combined medication (225). The patients were divided into three groups. One group of patients received only exposure therapy, one group of patients received exposure therapy and an anti-depressant medication (clomipramine), and one group received only medication (227-230).

Simpson, et al's (2004) hypothesized that the groups who received only exposure and exposure and medication would be less likely to relapse. After

the therapy was over the patients were followed for 12 more weeks, and tested every fourth week on the Yale-Brown Obsessive-Compulsive Scale, Clinical Global Impressions, and the National Institutes of

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Health Global Obsessive-Compulsive Scale. At the end of testing the groups with exposure and medication proved to have a lower relapse rate than the group receiving only medication. The group receiving only exposure therapy also had a significantly lower relapse rate than the group receiving only medication (232-233). In summary Exposure therapy identifies dysfunctional thinking and emotions and attempts to break the pattern escape strengthened by anxiety and fear. In vivo exposure has been proven to be effective in areas such as the treatment of anxiety disorders, phobias, and posttraumatic stress disorder (Corey, 2009, 247)