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Active-imaginal exposure: examination of a new behavioral treatment for cynophobia (dog phobia)

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Abstract

The aims of this study were to investigate exposure-based treatments for cynophobia (dog phobia) and to test a newly developed hybrid imaginal exposure treatment that we have named *active imaginal exposure*. The treatment introduces an in vivo coping component to imaginal exposure whereby the patient physically performs coping responses to an imagined feared stimulus. Eighty-two participants meeting DSM-IV criteria for specific phobia (animal subtype) were randomly assigned to one of three 30-min. treatments: (a) active-imaginal exposure (AI), (b) imaginal exposure alone (IE), or (c) graduated in vivo exposure (IV). Participants completed a behavioral approach test at pre, post, and four-week follow-up. Significant pre- to posttreatment improvement was observed in all three treatment conditions. Response rates at posttreatment were 51.9, 62.1, and 73.1% for the IE, AI, and IV groups respectively. Likewise, effect sizes at posttreatment were 0.76, 1.41, and 1.55 for the IE, AI, and IV groups respectively. Although in the predicted direction, the between group differences were not significant. A similar pattern of results was observed at follow-up. Further, safety behavior utilization during treatment was associated with less improvement—particularly in the two imaginal treatment conditions. Exposure treatments of dog phobia appear feasible and effective in reducing phobic fear and avoidance associated with dog phobia. Furthermore, preliminary evidence suggests that our active-imaginal exposure treatment may be a viable alternative to in vivo exposure.

Keywords: Dog phobia; Specific phobia; Treatment outcome; Exposure; Cognitive-behavioral treatment

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1. Introduction

Phobias of animals represent some of the more common subtypes of specific phobia with prevalence rates of 12.1% for women and 3.3% for men (Fredrikson, Annas, Fischer, & Wik, 1996). Among those who seek treatment, 36% present with a phobia of dogs or cats (Chapman, Fyer, Mannuzza, & Klein, 1993). Unlike other phobias of the animal subtype such as phobias of snakes and spiders, dog phobia typically results in significant life impairment due to the estimated 62,400,00 dogs living in the United States (American Pet Products Manufacturing Association, 2000) and their omnipresence. As one of our dog phobic participants stated, "There is hardly a place I can go without running into a dog." Although the etiology of dog phobia is unknown, it is likely that the 4.5 million dog attacks reported annually (Sacks, Kresnow, & Houston, 1996) contribute to the problem.

Numerous studies have demonstrated the efficacy of behavior therapy in treating phobic disorders (Barlow, 1988; Marks, 1978). Controlled efficacy studies of behavioral treatments for specific phobias reveal a response rate of 76% (Arntz & Lavy, 1993; Hellstrom, Fellenius, & Öst, 1996; Hellstrom & Öst, 1995; Öst, 1996a; Öst, Fellenius, & Sterner, 1991; Öst, Ferebee, & Furmark, 1997; Öst, Hellstrom, & Kaver, 1992; Öst, Johansson & Jerremalm, 1982; Öst, Salkovskis, & Hellstrom, 1991; Öst, Sterner, & Fellenius, 1989). However, none of these controlled studies focused on treatments of dog phobia. In a case series report, Hoffmann and Odendal (2001) described the use of systematic desensitization in treating dog phobia.

Exposure to fear-provoking objects or situations is the central procedural element in behavioral treatments for specific phobias. Exposure techniques vary along several dimensions, including gradation, duration, spacing, facilitation of mastery, and mode of exposure (Tearnan & Telch, 1984). Perhaps the most salient dimension is the mode of exposure: imaginal or in vivo. In vivo exposure is thought to be more powerful than imaginal (Lindemann, 1989); however, it can be inconvenient to conduct, depending on the availability of the stimuli or situations that evoke fear. For example, animal phobias present a challenge to therapists because of the difficulties associated with the housing and care of animals to be used in treatment.

While many therapists prefer in vivo techniques because of their presumed greater therapeutic potency, imaginal techniques offer advantages with respect to both convenience and flexibility. Imaginal exposure is easier to conduct in a therapist's office, and can be readily adapted to fit idiosyncratic situations which evoke fear for the individual patient. Moreover, patients who refuse to confront fearful situations in vivo may be prepared gradually for such exposure using imaginal procedures.

Ideally, exposure-based treatments should be both powerful and convenient. Thus, researchers interested in pushing the envelope on phobia treatments are faced with the decision to either develop ways to make in vivo exposure more palatable to patients and more convenient for clinicians or to develop more potent imaginal techniques. Evidence from several sources suggests that imaginal exposure to fear-provoking cues may be enhanced through the inclusion of coping scripts into the imagery scenes. In one variation called covert modeling, the patient imagines a person modeling coping behavior in the fearful situation. Kazdin (1979) found that imaginal exposure was more effective in helping patients increase assertive behavior when they were instructed to imagine an assertive model. Similarly, Foa (1997) showed that covert modeling was an effective addition to stress inoculation training in the treatment of posttraumatic stress disorder