

## The Animal Studies Repository

---

From the Selected Works of Harold Herzog, Ph.D.

---

November 19, 2015

# Stress Relief in Seven Minutes, Doggie Style

Harold Herzog, *Animal Studies Repository*



Available at: <https://works.bepress.com/harold-herzog/83/>

Hal Herzog, Ph.D., Animals and Us

## Stress Relief in Seven Minutes, Doggie Style

Do programs using dogs to relieve anxiety in university students really work?

Posted Nov 19, 2015

When it comes to high-stress university environments, Yale Medical School probably ranks close to the top. It is, for example, the only medical school in the country that requires students to write a doctoral dissertation. So its medical students and residents may need a few minutes to de-stress between sitting in on an oncology lecture, dissecting a cadaver in an anatomy lab, and attending grand rounds. But can a few minutes of downtime really reduce anxiety levels and improve your mood? A new study by Yale researchers which will appear in a forthcoming issue of the journal *Anthrozoös* suggests that even very brief sessions of R & R can have large effects—if they involve hanging out with a dog.

The instigator and lead investigator of the study was Molly Crossman, a doctoral student in psychology. Her collaborators were Yale psychologist Alan Kazdin and Krista Knudson, a graduate student in nursing. The most important member of the team, however, was Finn—Knudson's gray, medium-sized, mixed breed therapy dog.

### Universities Are Going To the Dogs

Finn had been holding court in the Yale medical school library every Friday for three months when the researchers began the study. Finn was not the first therapy dog in the hallowed halls. The law school library had offered dog visitations to its students for several years, and the Harvard medical library is regularly graced by a Shih-Tzu named Cooper. Indeed, there are over 925 canine visitation programs at universities in the United States.

But do these programs actually work?

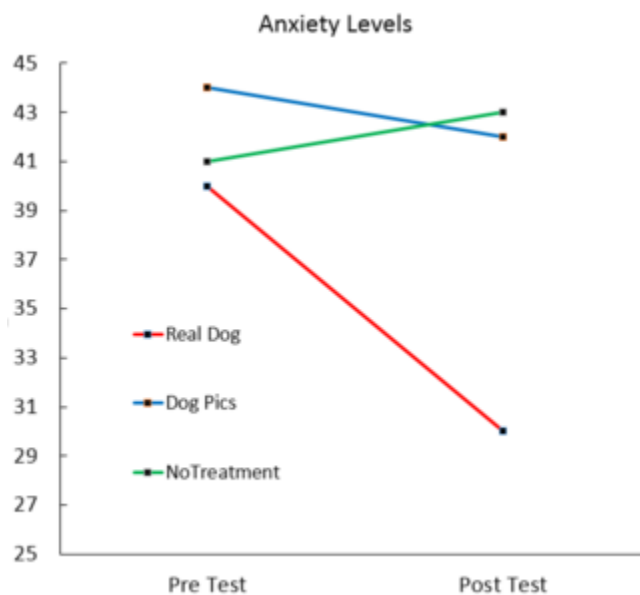
The media is rife with claims about the miraculous powers of, for example, dolphins to cure autism, horses to alleviate Alzheimer's disease, and dogs to transform the lives of cancer patients. But as I pointed out in this previous Psychology Today post, for the most part, the quality of the evidence does not live up to the hype. As Crossman and her colleagues point out, most studies of the stress-relieving properties of university-based animal visitation programs are seriously flawed. The most common methodological problems include too few subjects, no control groups, and the lack of random assignment of subjects to treatment conditions. With these problems in mind, Crossman and Kazdin (an expert on the design of clinical trials in psychology) decided to conduct a randomized clinical trial of Finn's ability to provide short-term relief to stressed-out medical school students and residents.

## The Study

The researchers had several goals. First, they wanted to see if even a brief session of petting and playing with Finn would temporarily reduce the participants' anxiety and bad mood levels ("negative affect") and increase their good mood levels ("positive affect"). Based on previous research, they also predicted that subjects with more experience with dogs would show greater improvement in their moods and anxiety levels than participants with little or no experience with dogs.

It was just the kind of simple study I like. The 67 subjects were Yale medical students and medical residents. They were divided into three groups: The participants in the experimental group interacted with Finn for between 7 and 10 minutes. To control for any beneficial impact from simply looking at an animal, the researchers included a second, "no-interaction control" group. Instead of playing with Finn, this group saw a slide show featuring photographs of Finn. Finally, the last group of subjects was assigned to the "no-treatment control" condition: They just hung out in another room.

It was a "pre-test/post-test control group" study. Each participant first completed standardized psychological assessment questionnaires which measured their current level of anxiety (the State Anxiety Inventory) and their positive and negative mood states (the Positive and Negative Affect Schedule). In addition, they were given a questionnaire that assessed their past experiences with dogs. After they completed these surveys, the participants played with Finn, watched the Finn slide show, or sat in the waiting room. Immediately after their session, they retook the anxiety and mood surveys.



Source: Graph by Hal Herzog

## **And the Results Were...**

Impressive! The subjects who played with Finn showed major declines in their anxiety and negative mood scores and large increases in their positive mood scores. Not only were these changes—in stat-speak—“statistically significant,” the “effect sizes” (more stat-speak) were very large. Most important, the subjects in the two control groups did not show any meaningful changes in their moods or anxiety levels. Finally, and surprising to me, there was no relationship between previous experiences with dogs and the degree that playing with Finn improved the subjects’ moods or anxiety levels. In short, Finn made a big difference—even for people who were not gaga over dogs.

## **Why This Study Is Important**

The Yale study is important for several reasons: First, the design included appropriate control groups. Second, there were a reasonably large number of subjects. Finally, Finn had a very large impact on the participants in the experimental group. This means that the results are likely real and not a simply a fluke.

As is often the case in science, the research answers some questions and raises others. How long, for example, does the “Finn effect” last—a few minutes, a few hours, a few days? Would other dogs prove as effective as Finn when it comes to temporary stress relief? Would one minute with Finn still increase mood and lower anxiety? Would 20 minutes of doggie time have a larger or smaller effect on stress relief?

Note that Molly Crossman and her colleagues do not claim that therapy dogs cure anything. They simply say that playing with a dog during university animal visitation programs can result in “a few moments of relief.” But, sometimes, that is enough.

## **References**

Crossman, M.K., Kazdin, A.E. & Knudson, K. (in press). Brief unstructured interaction with a dog reduces stress. *Anthrozoös*.