

The thrust of the project that Chris Scocco is conducting is two-fold. In Phase I of this study he, along with a lab technician in my lab, will investigate the Placebo Effect in pest management. The Placebo Effect in medical research is essentially a control treatment wherein the influence of no-treatment is evaluated for its impact on some response variable, often based on a study participant's opinion. Among various aspects of pest management (especially residential), I hypothesize that a component of what is considered pest control is really the Placebo Effect, in that residents perceive control of pests even when this is not the case---i.e., a pest control person going through the motions creates in the recipient's mind the perception of pest control, even when no proof exists. A good book on the power of the Placebo Effect is *Snake Oil Science* by R. Barker Bausell, Ph.D. (biostatistician at the University of Maryland). Dr. Bausell was the director of a recent NIH Office of Complementary and Alternative Medicine (e.g., acupuncture, homeopathy, etc.). His book is a fairly strong rebuke of these therapies (and medical research in general), shedding light on them as "sham" therapies in which they are shown to be no better than no-treatment in improving health or soothing pain. In the current study, Chris is sampling (via three pheromone-based sticky traps per apartment) each of 200 low-income apartments to determine the level of cockroach infestation in each (see attached graph for some early data). Following his trapping, we will go into a number of these infested apartments and apply a sham treatment (peanut butter) from what looks like legitimate treatment tools. We will even inform the residents (purposeful deception) that we are there to control the cockroaches. We have contracted with the UGA Survey Research Center (Dr. James Bason) to then come down and interview each of the apartment dwellers in which we applied the inert peanut butter (see attached survey instrument from the UGA-SRC) to get their (apartment tenants) ideas on the efficacy of the treatment. Cross tabulation, Chi-Square analyses will determine whether a true Placebo effect is present. Following this, we will re-trap each apartment, and conduct a t-test between the dates regarding cockroach trap numbers. Our hypothesis is that the numbers will not differ significantly, but that the SRC will show that in the opinion of the residents that what we did in fact control the cockroaches---i.e., we will have shown for the first time the Placebo Effect in pest management.

Following the Placebo treatments (Phase II) we will go into each apartment and truly provide the tenants with an effective cockroach control program. German cockroaches are a major source of allergens for asthmatic children in the inner city. In fact, it has been estimated that the number one cause for emergency room visits by inner city children is asthma attacks initiated by cockroaches. A particular protein(s) found in German cockroach cast skins, feces, and cadavers has been reduced in cockroach-infested apartments by simply reducing live cockroach populations (Sever et al. 2007. *J. Allergy Clin. Immunol.*). In light of this published report, our project has the potential to make these apartments safer by reducing cockroach populations. The ultimate goal of this project is to get a publication on the first documented case of a Placebo Effect in structural pest management.

Placebo Study  
Interview Instrument

Good afternoon. I am working for the University of Georgia today following up on the pest control treatment that was done to your apartment last week to get rid of roaches. I'd like to ask you a few brief questions today on how well the treatment worked. Is that okay?

1. Yes
2. No [CODE REFUSAL]

Okay.

Q1 – First, how effective do you think the treatment was in controlling roaches in your home? Would you say it was very effective, somewhat effective, not very effective, or not at all effective?

- \_\_\_ Very effective
- \_\_\_ Somewhat effective
- \_\_\_ Not very effective
- \_\_\_ Not at all effective

Q2 – Have you seen any roaches since the treatment was conducted?

- \_\_\_ Yes
- \_\_\_ No [SKIP TO Q4]

Q3 – How many roaches have you seen since the treatment? Have you seen just one or two, a few, or a lot of roaches since the treatment?

- \_\_\_ One or two
- \_\_\_ A few
- \_\_\_ A lot

Q4 – How confident are you that the treatment that was applied is going to keep roaches from returning to your home?

- \_\_\_ Very confident
- \_\_\_ Somewhat confident
- \_\_\_ Not very confident
- \_\_\_ Not at all confident

Q5 – Was the pest control treatment you received last week better than the one that is normally done on your home, about the same, or worse than the one that is normally done at your home.

- \_\_\_ Better
- \_\_\_ About the same
- \_\_\_ Worse

That's all the questions that I have. Thank you for your help today

## Total Number of Cockroaches Per Unit at Meriwether Street

