

Week 4 Day 1

Part I: Women in Finland

In 2002, the journal *Science* reported that a study of women in Finland indicated that having sons shortened the life spans of mothers by about 34 weeks per son, but that daughters helped to lengthen the mothers' lives. The data came from church records from the period 1640 to 1870.

For more information, read this news from the journal *Nature*, and the original article published in *Science*.

Can you conclude having daughters would lengthen the mothers' lives? If not, what are some possible confounding factors?

Part II: Meditation, Exercise, and ARI

This following study was designed to evaluate potential preventive effects of meditation or exercise on incidence, duration, and severity of acute respiratory infection (ARI) illness. Community-recruited adults aged 50 years and older were randomized to 1 of 3 study groups: 8-week training in mindfulness meditation, matched 8-week training in moderate-intensity sustained exercise, or observational control. The primary outcome was area-under-the-curve global illness severity during a single cold and influenza season, using the Wisconsin Upper Respiratory Symptom Survey (WURSS-24) to assess severity. Health care visits and days of missed work were counted.

For more information, read the original paper [here](#). Now please answer the following questions.

1. What are the cases in this study?
2. What are the treatments, and what is the control group?
3. What is the response variable? How is the response variable measured?
4. Was it blind (or double-blind)?
5. What can you conclude from this study?