

Variables

NAMES:

The following excerpt came from the April 2001 Mayo Clinic Health Letter.

*More than 300,000 Americans over age 65 are hospitalized each year due to hip fractures. Researchers in Finland (published November 23, 2000 in New England Journal of Medicine) recently studied the use of hip protectors to combat fractures. Hip protectors are cup-shaped pads that fit snugly around each hip joint and are held in place by a stretchy undergarment.*

*In the study, 653 people over age 70 with at least one risk factor for a hip fracture agreed to wear the hip protectors daily for 18 months. Researchers also monitored a similar group of 1,148 people who did not wear hip protectors. During the study, 13 people (2 percent) in the hip protector group had a hip fracture, compared with 67 people (5.8 percent) in the group not provided hip protectors.*

*Researchers also looked at the relationship of falls and fractures in the hip protector group. During the study there were 1,404 falls in that group. Although these resulted in 13 hip fractures, nine of the fractures occurred when people weren't wearing their hip protectors. In fact, 31 percent of the hip protector group refused to wear the hip protectors. In addition, the study did not track falls in the group not using hip protectors.*

1. What is the population?

2. What is the sample?

3. What is the explanatory variable?

4. What is the response variable?

5. Discuss any lurking variables that could throw off the results of the study.

6. Overgeneralization of the results of a study can lead to disappointing results when we expand the treatment to the entire population. Discuss this as it relates to hip protectors.