

1. Survey (or Polls)

Example Article: Polling Methods

Advantages:

1. Opinions
2. Large Groups of People
3. Lots of Methods to Collect Data

Disadvantages:

1. Depend on honesty
2. Doesn't test the effect of something
3. Can contain **BIAS**

Lack of Sleep puts you at a higher risk for Colds

Lack of sleep puts you at higher risk for colds, first experimental study finds

By Hanae Armitage | Sep. 1, 2015, 11:00 AM

Moms and sleep researchers alike have stressed the importance of solid shut-eye for years, especially when it comes to fighting off the common cold. Their stance is a sensible one—skimping on sleep weakens the body's natural defense system, leaving it more vulnerable to viruses. But the connection relied largely on self-reported, subjective surveys—until now. For the first time, a team of scientists experimentally showing that sleep-deprived individuals are more than four times more likely to catch a cold than those who are well-rested.



Sleepless night, the moon is bright. People sleep less soundly when there's a full moon, researchers discovered when they analyzed data from a past sleep study.

Photo: Shutterstock (2015), Museum of Modern Art, New York, Corbis Images

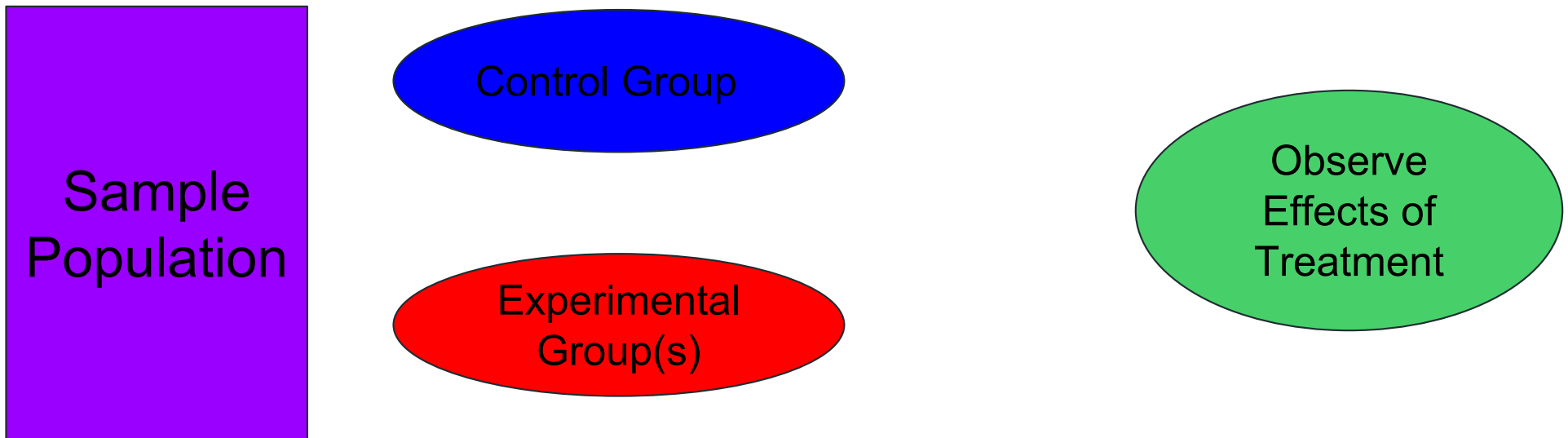
Key question 1: What did the researchers DO to the people in this study?

Key question 2: Did everyone in the study receive the virus?

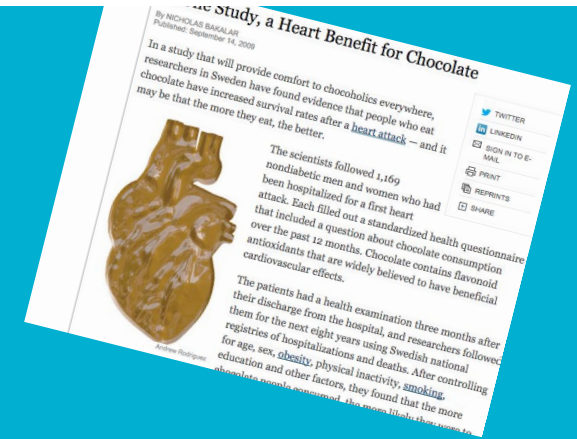
2. Controlled Experiment

Example Article: Lack of Sleep Puts you at a Higher Risk of Colds

Used for determining the effect of a TREATMENT.



In One Study, a Heart Benefit For Chocolate



Key question 1: Why does the article say that this might be a weak study?

Key question 2: What other factors might have contributed to the results?

3. Observational Study

Example Article: In One Study, A Heart Benefit for Chocolate

The researchers DON'T influence the Sample Population at all. Instead, they just observe and collect data in order to draw conclusions.

Important factors for Strong Studies:

1. Eliminating Bias:
 - a. Randomly choosing participants
 - b. Don't tell subjects that you are researching them!
 - c. Word questions carefully (don't try to sway your subjects).
2. Reliability:
 - a. Have enough participants.
 - b. For experiments, have a control group.
 - c. Randomly assign participants to groups.