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HW 1

Education and Injury Prevention

1. This is an observational experiment because while 75 students completed prevention training, it was voluntary so there was no intervention. The researchers could just observe and compare the outcomes.
2. To select students at random I could use the university student database and employ a random number generator to select 150 students. 75 of which completed the training and 75 who did not. These randomly selected students could then be accessed through the school email.
3. Yes, these results are potentially subject to confounding because those who voluntarily chose to complete the safety training could have a higher awareness of safety measures which could contribute to the lower rates of injury independent of the training.
4. To make this observational study an experiment you must intervene. Therefore, you could randomly assign students to take the training and assign students to be in the control group.
5. Even in this alternate study there is still the possibility that these results are subject to confounding. For instance, socioeconomic status could influence the likelihood of students participating in this training. Moreover, access to healthcare could lower the injury rates.
6. The original proposal is prospective study because it follows the students over the course of one year for outcomes.
7. 150 Cal Poly students will be selected through a random number generator for the study: 75 from the records of students who completed the injury prevention training and 75 who did not. The rates of injury over the next year will be compared and analyzed between the two groups.

Peanut Allergies

8. For the LEAP study, 640 adults or older children (10 years or older) with a history of peanut allergies, confirmed through medical records, in the United Kingdom were selected. Individuals with other known allergies or a family history of allergies were excluded to account for confounding. Information about their early peanut exposure, frequency of consumption, and allergic reactions were gathered through detailed questionnaires. The rates of peanut allergies among individuals with early peanut exposure and those without were compared.