Social Ties and Cold Susceptibility

Social networks may play a role in the ability of the individual to resist infection. To examine this possibility, 125 men and 151 women from the Pittsburgh, PA area (age range 18-55) who were judged to be in good health after a medical examination participated in a study for $800. After 24 hours of quarantine, participants were given nasal drops containing a low infectious dose of 1 of 2 types of cold virus. The quarantine continued for five days after exposure. Nasal secretion samples were collected and respiratory symptoms were assessed on each of the five days. Social network diversity was assessed by determining the number of different types of relationships each participant had, as well as the total number of network members. Figure 1 presents data related to the key findings of the study.

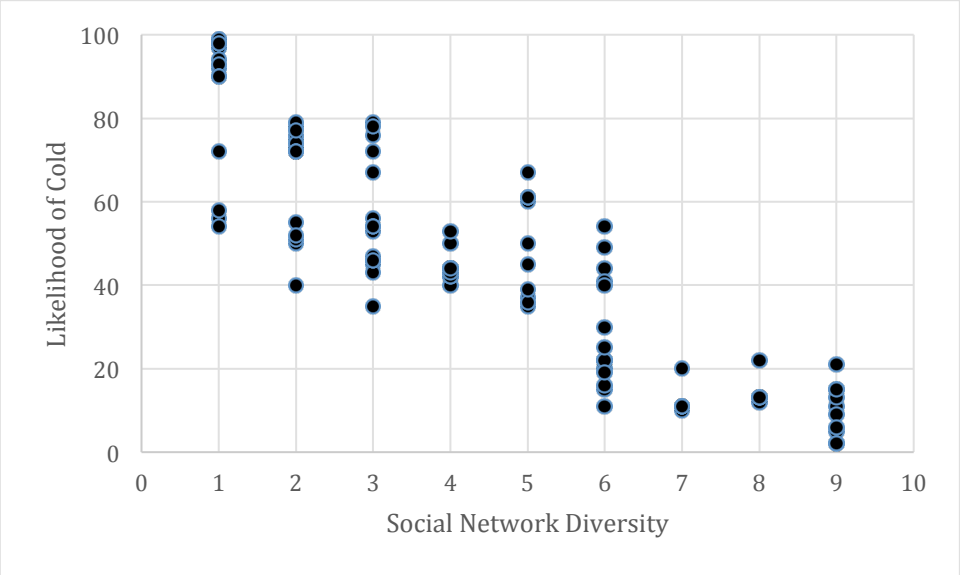

Figure 1. Association between social network diversity and likelihood of reporting that one has a cold. Higher values of social network diversity represent a more diverse social network.

Discussion questions:

1. How does this study design compare to the one your group designed? What are positives and negatives of each?
2. Can you conclude from these data that there is a causal link between social network diversity and ability to resist infection? Why or why not?
3. What are the real-world implications of these findings?
4. If you could revise this study in one way, how would you revise it? Why would you change it in this way?

Data adapted from:

Cohen, S., Doyle, W., Skoner, D., Rabin, B., & Gwaltney, J. (1997). Social ties and susceptibility to the common cold. Journal of the American Medical Association, 277, 1940-1944.