Group Exercise: Correlational Design

Dr. McLeod conducts a study examining the relationship between the number of night terrors a child experienced in the past month, the number of bed wetting incidents, and parent's levels of neuroticism (a personality trait characterized by instability, anxiety, and worry). She collects a convenience sample of 50 children, ages 5-11 (25 males, 25 females). Below are her findings.

• A (number of night terrors in the past month and bed wetting): r =.03, not sig.

• B (number of bed wetting incidents in the past month and parental neuroticism): r = .14 (p = .05)

• C (number of night terrors in the past month and parental neuroticism): r = .48 (p = .003).

**Questions: Please prepare responses to each of the following:**

1. Draw a scatterplot for the three associations found by this study.

2. Of the three findings in Dr. McLeod’s study, which finding has the largest effect size? Name two things that having a large effect size means.

3. Of the three findings in Dr. McLeod’s study, which associations are statistically significant? What does it mean that an association is statistically significant?

4. What is an outlier? What aspect of Dr. McLeod’s study makes her findings especially susceptible to outliers? Why is this a problem?

5. Examining Dr. McLeod’s study and using the three criteria of causation, why can she not say that parental neuroticism causes a child to have night terrors?