Halstead, Groah, et al (2010) The Effects of an Anabolic Agent in Tetraplegia

1. The study design is described as a "prospective repeated measures longitudinal study." (2 pts)
    a. What does "prospective repeated measures longitudinal study" mean?

    b. What are the advantages to using this study design?

2. This study does not use a control group. (2 pts)
    a. What is the reasoning given by the authors' for their single-group approach?

    b. What advantages would the inclusion of a control group have on the study design? Why exclude it?

3. Describe the study sample. What limitations are posed by the study inclusion criteria? (1 pt)

4. The small scale of this pilot study precludes the investigation of a full range of confounders to the relationship between oxandrolone and body composition and pulmonary function. If you had the opportunity to expand upon this research, what additional variables would be important to asses in the overall analysis? (1 pt)

5. Do the authors report any statistically significant findings for the effect of oxandrolone on body composition? On pulmonary functioning? (1 pt)

6. Based on the results reported in Table 1 and Figure 1, do you agree with the conclusion "Preliminary data using the anabolic steroid, oxandrolone, for 4 weeks suggests it might be beneficial in reducing…some of the complications following SCI." Why or why not? (1 pt)

7. What is the purpose of Table 3? What are the limitations in making this sort of cross-group comparison with the reported results of another study? (1 pt)

8. The authors conclude that "abnormal changes in serum lipids and LFT's during treatment with oxandrolone…do not appear to outweigh their adverse effects." What is the basis of the authors' statement? Explain why you agree or disagree. (1 pt)

Ragan, McNeely, et al (2010) Diabetes Mellitus and Obesity

1. What is meant by a cross-sectional study design? What are the drawbacks to using this type of design? Despite these limitations, why might a researcher choose to use a cross-sectional design? (2 pts)

2. Describe the study sample derivation. What types of bias might result from some of the authors' analytic exclusions? Did they report any significant differences between the analytic sample and the excluded group? (3 pts)

3. What is the difference between dichotomous and continuous variables? (1 pt)

4. What statistical tests were used to test differences between BMI and the dichotomous and continuous variables, respectively? (1 pt)

5. What covariates were included in the study? Why include covariates? (2 pts)

6. If you were designing a similar study, what covariates would you consider to assess? (1 pt)

7. Referring to Table 1, did the authors report any group differences among persons with diabetes versus not ? If yes, what were they? (2 pts)

8. Referring to Table 3, what does it mean to say "all models are adjusted for age, race, tobacco use…" (1 pt)

9. What does prevalence mean? (1 pt)

10. Based on the results, does use of the finer BMI categories result in a higher prevalence of diabetes? (1 pt)