“Apgar Scores at 5 Minutes After Birth in Relation to School Performance at 16 Years of Age”
(Andrea Stuart, MD, Petra Otterblad Olausson, PhD, and Karin Källen, PhD)
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1. Define the type of study. Why did the authors choose this method for answering their question? Would another study design be more appropriate? Are there any concerns that this design may affect the findings?

2. Discuss the origins of the Apgar score. What was the Apgar score designed to do? What is the Apgar score based on? Is this score still useful today?

3. Based on your response to Question 2, would you anticipate the objectives of this study to be testable? Why or why not?

4. Review the Apgar scores over the past year at your institution. How many 5-minute Apgar scores were less than 7? What were the reasons for those Apgar scores?

5. What was the objective of this study? How might achieving this objective assist you in your practice? Based on your response to Question 4, are any of the reasons for the low 5-minute Apgar scores preventable at your institution?

6. The study included nearly 900,000 participants. Is it possible to repeat this study with a similar sample size? Is there a need to replicate these findings?

7. The authors describe performing a linkage between the Swedish Medical Birth Registry and the Swedish School Grade Registry. What is a linkage? How is it done? Are there any concerns to consider?

8. The authors compare 5-minute Apgar scores to school graduation grades and include evaluation of several factors for stratification. Review these factors (ie, year of birth, maternal age, maternal smoking, etc).
   a. Are there any other factors that you might consider important that are not included?
   b. Why is it necessary to stratify by these factors?
   c. How does stratification account for them in the analysis?

9. How can the authors account for intervening life events, opportunities, illnesses, etc that may affect the outcome of school for these children? Is this a strength or a weakness of the study?

10. Will the findings from this manuscript alter your practice? What changes, if any, will you make?