**DOCTORAL PROGRAM QUALIFYING EXAM**

DATASET

National Pregnancy and Health Survey: Drug Use among Women Delivering Live Births, 1992

* How do race and other sociodemographic characteristics relate to low birth weight and preterm birth among women who use illicit substances (i.e., amphetamines, cocaine, crack cocaine) during pregnancy, as compared to those who do not?
* For more information: <https://www.icpsr.umich.edu/web/NAHDAP/studies/2835>
* Dataset da2835p1 is the raw data, i.e., unformatted with survey-generated missing values (e.g., 9, 9999).
* Dataset nphs1992 is formatted with SAS system missing values (i.e., ‘.’). Use format catalog QUATFORMATS for this dataset.

INSTRUCTIONS

The purpose of this qualifying exam is to test your ability to synthesize the concepts and skills learned throughout the core doctoral coursework. You will be given a dataset which you are expected to clean and analyze using your choice of statistical software, then describe and discuss the results in the context of the current public health science. The end product will be a mini-manuscript (i.e., short introduction of the specific research question, full description of methods, results, and a modified discussion). We will provide specific points that should be addressed in your discussion, along with the usual components of a discussion section (e.g., strengths and limitations of your analyses). You will also turn in your code, log, and results from your statistical analysis (as appropriate for the package chosen; e.g., Output file for SAS). Please note, we do not expect a complete literature review for your introduction or a full comparison of similar studies in your discussion section. You should review and cite a few selected references from high quality sources to give yourself and the graders a general idea of the current state of the science related to the research question.

* Introduction: description of the public health issue based in the existing literature leading to a brief statement of the research question and public health significance of the research question
* Methods: in-depth description of the study design, data/source of data used in your analysis, study population (e.g., defined inclusion/exclusion criteria), data cleaning (e.g., recoding, scale scoring), and statistical methods employed. Please note: you are required to include an assessment of at least five potential confounding variables and at least one potential effect modifier in your analysis. Include a rationale for the potential confounding variables and effect modifier(s) you propose. For analyses that have different options to choose from in the research questions, be clear on decisions and justify choices (e.g., different variables, different time points, etc.).
* Results: in-depth discussion of the results of the statistical analyses that were used to answer the research question, with supporting tables and figures. A minimum of two tables or figures is required.
* Discussion: interpretation of your results, in-depth discussion of the strengths and weaknesses of your study/analysis, and the implications that your results have for research and public health practice. You should also address **two of the following three specific points** within the discussion section of your manuscript:
  1. Briefly propose a specific alternative study design (i.e., a stronger design) as a next step (i.e., a follow-up to your findings and/or to replicate your findings). This brief proposal should clearly state the study design, study population, how this study design will expand or improve upon the current study, and the strengths and limitations of this new design.
  2. Briefly propose a specific implementation project that could serve to alter/improve the associations (or lack thereof) identified in your analysis of the main exposure(s) and main outcome(s) of interest to improve population health. In your answer, briefly propose the best suited implementation theory that would be used to guide the implementation project, designed to improve the quality of associations.
  3. Briefly propose a health behavior theory that can be applied to this particular health problem (regardless of whether a significant association was found in your analysis). Develop a brief critical analysis of the application of the theory to the health problem. Briefly describe how constructs from the theory have been or could be applied to the health problem.
* You will also need a concluding paragraph that discusses both practice and research implications based on your findings.

Read the research question and instructions carefully. Do not discuss this exam in any way with anyone except the Doctoral Committee (Ehrlich and Kintziger). You may consult with reference materials from your courses, the internet, etc. as needed. Evidence of cheating (including discussion of questions or analyses with others or use of past exams as guides) will result in a failing grade.

By taking the qualifying exam, you are agreeing to the following pledge:

"An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity." (Graduate Student Handbook)