

BECCA Consultative Statistical Services for PhD Students

Introduction

Penn Nursing PhD students acquire important statistical knowledge and skills through their required statistical courses, advanced methodological and statistical concentration courses, and through direct mentorship with their research mentor(s). Students can obtain statistical consultation for their dissertation or external grant submissions from BECCA.

What is statistical consultation?

In a statistical consultation, students are typically seeking the help of a statistician to select and use the best methods for obtaining and analyzing data for some data-related objective. The statistician will serve as a consultant as described in the following document: <https://higherlogicdownload.s3.amazonaws.com/AMSTAT/8bd153bf-f076-4d42-b3f46f522d50d935/UploadedImages/SCSBrochure%202013.pdf>

What is the scope of BECCA consultation?

As consultants, BECCA personnel may be used for advising on the following

- study aims
- operationalizing outcome variables
- survey design: RedCap, Qualtrics
- data collection considerations
- power and sample size calculations
- statistical methodology
- statistical programming: data cleaning, data management, coding checks for data analysis
- interpretation of statistical output
- table shells for dissertation or manuscripts, and dissemination of study findings
- reviewing results and discussion sections, abstracts submissions, poster and oral presentations

What is the responsibility of the PhD student and mentor?

Students, in collaboration with their dissertation committee, are expected to assume full responsibility of study design and statistical methods. They will work with statisticians to understand their choice of design and statistical methods, along with the underlying assumptions associated with chosen methods. Students can request review of their statistical programming codes from BECCA statisticians. It is solely the responsibility of students to run analyses and generate their own statistics. Students should use the consultation with BECCA statisticians to ensure complete and accurate interpretation of findings.

At what point in the program may PhD students consult BECCA and how much consultation is available?

- Students **on dissertation status** (post-candidacy examination) qualify for up to 10 hours of BECCA consultation each year until the dissertation is defended. The 10 hours of consultation is calculated on meeting time and also statistician time spent reviewing methods, data runs, results and so forth.
- Students who have not yet defended their candidacy examination, but who are **submitting an F31 (National Research Service Award [NRSA]) or comparable external grant application and have registered the grant submission in the ONR submission system**, qualify for 5 hours of consultation on their application. The faculty sponsor must endorse the submission timeline and participate in at least the first hour of consultation.

What if the PhD student needs services beyond the core package?

Additional statistical support may be secured for a fee from BECCA. Students are encouraged to work directly with their mentor on submitting intramural and extramural grants on which BECCA is included in the budget, or they may seek other sources of income to buy additional services. Students are also encouraged to take advanced statistics courses; BECCA can provide recommendations on advanced courses throughout Penn. Students may also secure additional statistical support from other sources at Penn, or external to Penn, and should discuss options with their PhD mentor.

How do I initiate a BECCA Consultation?

A request may be submitted at this link <https://requests.nursing.upenn.edu/>.