

Department of Biostatistics
Monthly Seminar Series

Thursday, October 12, 2017

2:45pm – 4:00pm

Erma Byrd 101

Speaker:

Christa Lilly, PhD

Assistant Professor, Biostatistics

Topic:

Use of Psychometrics in the Health Sciences, with an Applied
Example of a Planned Missing Design

Abstract:

The purpose of this talk is to give a broad overview of some of the research and projects I work on at WVU, with a more detailed discussion of one applied methodology, Planned Missing Design, within a Department of Pediatrics and College of Physical Activity and Sports Sciences example. This study (Greenbrier CHOICES) utilized a longitudinal planned missing design used to conduct a physical activity intervention in public middle schools (6th – 8th grades) in a rural Appalachian county. Program outcome measures were collected on 4,621 participants randomly selected at 13 points, with 33% participant random selection, and complete measures of demographic and anthropometric variables. Analyses focuses on exploration of missing data mechanism discovery. Specifically, no differences were found on demographic or anthropometric variables, suggesting missing completely at random (MCAR) data on the planned missing data. Participants with missing data after random selection were more likely to be older, male, and in the 8th grade, suggesting missing at random (MAR) data. I conclude that results suggest the use of the planned missing design allowed for the feasible evaluation of the intervention using modern missing data analysis to account for MCAR and MAR data.

The next monthly seminar will be held November 16, 2017 in G274