Becoming a Data Savvy Psychiatrist

PGY2 “Statistics” Course

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Course Objectives

To develop an attitude: “quantitative data do not scare me!”

To gain some skills in reading the method section, tabulations and charts in psychiatric journal articles

To have access to some conceptual knowledge in statistical methodology

Course Organization

Session 1 - Data and How to Compare Them

Key Concepts: Variables, Statistical Model, Hypothesis Testing, Effect Size

Paper: Wu et al, Am J Psychiatry. 2008 Mar;165(3):352-8

Session 2 - Correlations

Key Concepts: Cause and Effects, Regression, Confounding

Paper: Winhusen et al, J Clin Psychiatry. 2010 Dec;71(12):1680-8.

Session 3 - Data Evolution in Time

Key Concepts: Longitudinal Studies, Biases, Survival Data

Paper: Oquendo et al, Am J Psychiatry 2011;168:1050-1056

Session 4 - Data Visualization

Key Concepts: Box Plot, Scartter Plot, Histogram

Material

The course is primarily case/discussion based. I will bring in a paper for each session and we will use the paper to illustrate the concepts that I will introduce during the sessions. Lecture notes are handwritten and posted online. You will only need to bring a copy of the papers with you for each session, though scanning the gist of the paper may be helpful. For the last session I also encourage you to bring in graphs and charts that you find particularly illuminating, disturbing or misleading from either journal articles or the popular media.

Homework

We are way too old to have homework.

References

The only book I recommend for the course is called “How to lie with statistics” by Darrell Huff, which is old, but a classic.