**Tue Jul 19 meeting notes on structure**

A review of eight software packages for structural equation modeling

* Short review about the history of time dependent methods
  + Background
  + What is casual inference
  + What is time dep causal inference
  + What is the analytical challenge
* Review of all the methods that enables you to do casual inf
  + Overview of all the methods
  + Start with causal framework (DAG)
    - What is the relationship we want to estimate
    - Average treatment effect calculated using the diff of average potential outcome
    - Conditional treatment effect
* Light review of the three methods (three small paragraphs)
  + Marginal structure model
  + G computation
  + Tmle
* Talk about the three packages
  + Which version, available from where
  + Documentation on CRAN
* Illustration of time varying analysis without censoring
  + Data simulation
  + Stuff we did with the data
* Illustration of time varying analysis with censoring
  + Right censor
* Illustration of time varying analysis with survival data

Table of packages

* All of them can do censoring
* ltmle and gformula use bootstrap for variance computation
* Two packages are parametric

A review of meta-analysis packages in R

*Good intro and method section*

* Introduction
  + Start with what is causal analysis
  + History of causal analysis for time dependent variables
  + R availability
  + What is the objective of this paper
* Causal inference background
  + Put the math here
  + Causal framework, diagram and the three methods
* Review
  + What are we reviewing: three packages
  + Provide simulated data illustration
  + Considering scenarios
    - Without censoring
    - With censoring
    - Survival
  + Supplementary materials to be shared (code availability)

Propensity score analysis in R: A Software Review

* Introduction
  + Talk about analysis and history
  + What they did
  + No model diagnostics (statistical point of view)
* Statistical background (Method)
  + Simulated data so don’t need data section
  + Causal DAG and all the methods
* Talk about packages separately
  + Who created, where to find…
  + History
  + What the package do
* Three data illustrations
* Discussion