**Agenda for meeting with Kate about DT analysis**

2-16-2023

1. What has changed w.r.t. methods:
   1. YSR & CBCL outcomes instead of the latent INT/EXT and their components
   2. Updated list of mediators, down to 19 from 28
      1. Working memory variables removed
      2. Theory of mind reaction time variables removed
      3. Fear conditioning variable corrected – now the contrast in skin conductance between CS+ and CS- at the start of the acquisition block – before was the contrast in averages across the acquisition block for CS+ vs CS-, without adjustment for baseline conductance
      4. Reward sensitivity reaction time metric changed – previously had reactions times on 0,1,2,4-star rewards, but now replaced with a contrast in reaction times on 0-star vs 4-star trials (total stars still included as an overall performance metric)
   3. Missing data imputed using hot-deck rather than 20x predictive mean matching
      1. Lots of missing data, results are sensitive to imputation procedure
         1. 141/227 observations imputed due to missingness in 1 or more variables
      2. Hot-deck imputation simplified decision points
         1. HIMA selects different mediators within different imputations
         2. VVI,3 was the best latent profile model in 11 our 20 imputations, but it was not clear how to establish membership in a profile given between-imputation variability
   4. Pared down confounder adjustment to be mindful of temporal ordering of variables
      1. Don’t adjust for income-to-needs & max\_problems at baseline in exposure-mediator and exposure-outcome models, but do adjust for age, sex, poverty chronicity and maternal depression in early life (ages 3-6yr)
2. Big take-aways from updated results for CBCL/YSR:
   1. HIMA
      1. Tanner consistently selected as a predictor of all tested adolescent psychopathology outcomes
      2. There is a significant suppression mechanism by decreased language ability with respect to deprivation’s impact on self-reported internalizing symptoms:
         1. Greater deprivation severity -> lower language ability -> lower internalizing symptoms
         2. Detracts from a positive effect of deprivation on self-reported internalizing psychopathology
      3. Additional paths that may be significant if we had more power:
         1. Greater deprivation -> lower Tanner -> lower self-reported internalizing symptoms
         2. Greater deprivation -> lower reward sensitivity -> greater self-reported internalizing symptoms
      4. Threat significantly associated with both parent- and self-reported externalizing psychopathology, but not with any of the mediating phenotypes
3. If look at latent INT/EXT outcomes, without changing anything else
   1. HIMA
      1. There is a significant mediating path connecting threat to latent internalizing psychopathology via reward sensitivity
      2. Suppression path from deprivation to internalizing remains through language ability
   2. LMP results remain unchanged
      1. Association between low executive profile & externalizing psychopathology withstands adjustment for adversity & early life poverty/maternal depression
4. Comparison with prior iteration of the analysis
   1. What’s the same:
      1. Deprivation predictive of internalizing and threat of externalizing symptomatology
   2. What’s different
      1. Reaction time on accurate “Go” trials was a strong suppression mechanism between threat and various aspects of externalizing psychopathology, but reductions in accuracy on “Go” trials mediated the relationship between threat and EXT
         1. We don’t find associations between threat and accuracy or reaction time on accurate “Go” trials in the updated analysis