ADHD dataset variable descriptions

CATIE 2023, D3C

dim: 150 x 13

Baseline variables

Variable name	Variable type and notation	Description
`ID`	numeric	Subject identifier
`odd`	binary; X_1	Oppositional Defiant Disorder diagnosis, reflecting whether the child was (coded as 1) or was not (coded as 0) diagnosed with ODD before the first-stage intervention.
`severity`	continuous: X_2	ADHD score, reflecting ADHD symptoms at the end of the previous school year (larger values reflect greater symptoms). Range 0-10.
`priormed`	binary; X_3	Medication prior to first-stage intervention, reflecting whether the child did (coded as 1) or did not (coded as 0) receive medication during the previous school year.
`race`	binary; X_4	White (coded 1) versus non-white (coded 0).

Intermediate variables

Variable Name	Variable type and notation	Description
`R`	binary; S_{11}	Response status. R = 0 if child was classified as non-responder to first stage intervention, R= 1 if they were classified as a responder.
`NRtime`	numeric; S_{12}	Month at which child was classified as non-responder. Range 2-8. Undefined for responders.

Variable Name	Variable type and notation	Description
`adherence`	binary; S_{13}	Adherence to the stage 1 intervention. Reflecting whether the child did (coded as 1) or did not (coded as 0) show high adherence to initial treatment.

Treatments

We use effect coding (average to zero) to denote the two levels of treatment assignment. The primary benefit of effect coding is that we get interpretable estimates of both the main effects and interactions.

Variable Name	Variable type and notation	Description
`A1`	binary	Stage 1 treatment assignment. Randomized with probability 0.5 to Medication (MED, $A1 = -1$) or Behavioral Intervention (BMOD, $A1 = 1$).
`A2`	binary	stage 2 treatment assignment for non-responders. Non-responders we randomized with probability 0.5 to receive Augmented (AUG, $A2 = -1$) or Intensified (INT, $A2 = 1$) care. Undefined for responders.

Outcomes

Variable Name	Variable type and notation	Description
`Y0`	continuous	Baseline school performance (higher values reflect better performance).
`Y1`	continuous	Mid-year school performance
`Y2`	continuous	End-of-year school performance (primary outcome)

Reference

Nahum-Shani, Inbal, Min Qian, Daniel Almirall, William E. Pelham, Beth Gnagy, Greg Fabiano, Jim Waxmonsky, Jihnhee Yu, and Susan Murphy. 2012. "Experimental Design and Primary Data Analysis Methods for Comparing Adaptive Interventions." *Psychological Methods* 17 (4): 10.1037/a0029372. https://doi.org/10.1037/a0029372.