×

Example of SMART using Design D

We consider a SMART design for attendance-based prize contingency management for cocaine abuse (N.M. Petry, P.I.). Contingency management is a treatment used in substance abuse in which participants are rewarded for adhering to treatment.

Motivation

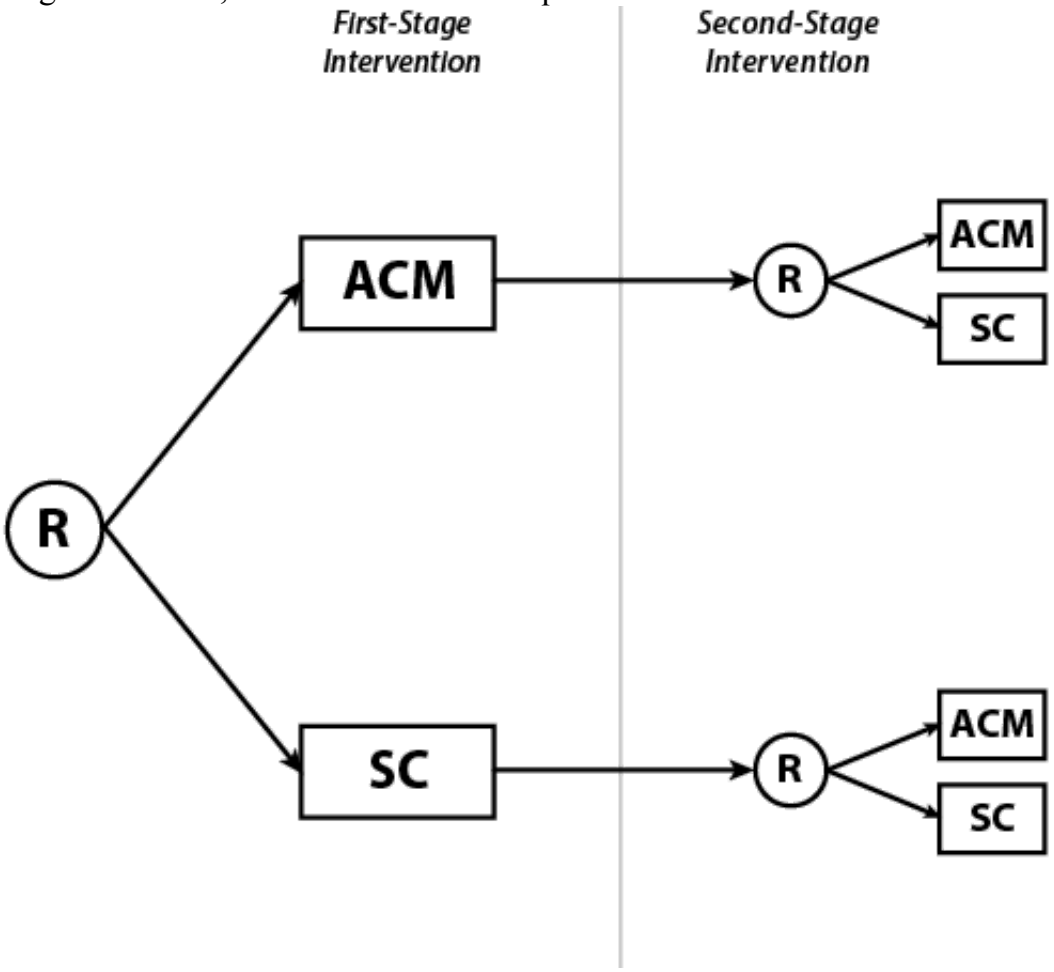
Contingency management has been shown to reduce drug use. However, there remain questions regarding optimal strength of reinforcement, as well as the timing and length of CM.

Trial Components

There are two treatments under study:

1. Attendance contingency management (ACM), in which patients are rewarded based on their attendance (or non-attendance) at treatment sessions
2. Standard care (SC).

After 6 weeks of treatment, all participants are re-randomized between ACM and SC. There is no tailoring variable influencing randomization. This results in a subset of patients who received varying lengths of ACM, as well as different sequences of ACM and SC.



Embedded *Non*-Adaptive Intervention Paths

Notice that, in the absence of a tailoring variable, there are zero embedded adaptive interventions. However, there are four embedded *non*-adaptive interventions. They are

1. "Give ACM for the duration of the study."
2. "Give ACM for 6 weeks, then switch to SC."
3. "Give SC for 6 weeks, then switch to ACM."
4. "Give SC for the duration of the study."

Outcome Measures

The primary outcome was length of abstinence from cocaine use.

References

1. Petry, N. M., Barry, D., Alessi, S. M., Rounsaville, B. J., & Carroll, K. M. (2012), "A randomized trial adapting contingency management targets based on initial abstinence status of cocaine-dependent patients", *Journal of Consulting and Clinical Psychology*, 80(2), 276-285. PMCID: PMC3668312