Effectiveness of Community-Based Drug Treatments for Adolescents

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Science-Based Treatments Are Effective

But the 135,000 annual adolescent admissions are mostly to community-based programs

- Eclectic, not typically science-based

The BIG policy question:

Are science-based treatments MORE effective than community-based treatments?
Community-Based Treatment is Understudied

Rigorous studies unavailable

- Just one “random assignment” study
  - 20 years old
  - Sample too small to detect treatment effects

- Large observational studies are the norm
  - DARP, TOPS, NTIES, DATOS-A
Observational Studies Are Inconclusive

- Program effectiveness examined with
  - Before-After comparisons of problems
  - Awkward comparisons
    - Therapeutic Community
    - Outpatient Programs

- Are Differences in Outcomes Due to
  - Program Effects?
  - Clientele Differences?
The 2nd Best Design: Case-Mix Adjustment

Statistical selection of appropriate comparison cases

- Not previously used in evaluations of community-based treatment for youths

RAND recently used this approach with its Adolescent Outcomes Study
RAND’s Adolescent Outcomes Study

Interviews before and 12-months after treatment used to compare outcomes of

- Phoenix Academy (PA) n=175
- Comparison programs (COMP) n=274

Statistically adjusts for group differences

- Age, Race, Substance Problems, Crime, Psychological Problems, etc. (56 variables)
Large Clientele Differences Before Identifying Adjustment

Example Key variables with baseline group differences

- Substance use frequency index
- Days drunk/high (in past 90)
- Days drug/alc use
- Days controled environment

Phoenix Academy  Comparison
Adjustment Eliminated Most Differences

Example Key variables with baseline group differences

- Substance use frequency index
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Phenix Academy  Comparison  Weighted Comparison
Phoenix Academy Had Superior Outcomes

- Drugs
- Psychiatric Symptoms
- Health
- Crime
DRUGS: Substance Abuse Symptoms

Interactions: Piece 1-SIG
Piece 2-p<.1
PSYCHIATRIC: Anxiety Symptoms Index

Comparison
Phoenix Academy

Interactions: Piece 1-NS Piece 2-SIG
CRIME: Property Crime (Proportion)

Month

Comparison Phoenix Academy

0 0.2 0.4 0.6 0.8

0 2 4 6 8 10 12
Phoenix Academy outcomes are relative to “active” comparison condition

- Comparison programs provided many services, and likely had positive effects on youth outcomes

Relative treatment effects may underestimate true treatment effects
Our Findings Are Limited

- Quasi-experimental designs:
  - Unobserved group differences could appear as “Treatment effects”

- Data rely on youths’ self-reports
Are Science-Based Treatments Better?

- Efficacy of science-based programs better studied than effectiveness of community-based treatments

- But weak support for community treatment efficacy does not imply ineffectiveness

- RAND’s AOP study suggests some community treatments are effective
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