
Outline

• Review
• Interventions that Harm Continued
• Abstinence Education
• Applied Research

Review

• Lipsey and Wilson (1993)
  – Pre-Test Post-Test One Group Design
  – File Drawer Problem
• Tricks to Make Evaluations Look Good
• Interventions that Harm
• Cambridge-Somerville Youth Study
What to do about Regression to the Mean?

• The reader might be surprised to learn that there is no statistical analysis that can remove or eliminate regression artifacts. (Campbell & Kenny, 1996, p. 171)
• The most important design feature is randomization of persons to treatment groups. (Campbell & Kenny, 1996, p. 164)
• Carefully consider rival alternative hypothesis – a pretest with a control group can help.

Potential Iatrogenic Effects. Men who had been in treatment.... (McCord, 1978, p. 288)
• Were more likely to commit (at least) a second crime.
• Were more likely to show signs of alcoholism.
• Were more likely to show signs of serious mental illness.
• Tended to have occupations with lower prestige.
• Important: The side effects that seem to have resulted from treatment were subtle (p. 288).

Dishion et al. (1999) – Adolescent Transitions Program
• Parent Focus: Parenting Skills
• Teen Focus: Prosocial Goals and Self-Regulation using peer reinforcement
• Both lasted 12 weeks
• Randomly assigned 119 high risk youth to four conditions:
  – Parent Focus
  – Teen Focus
  – Both Parent and Teen *Hypothesized as Optimal*
  – Attention Placebo Group
• Also recruited a control group (n = 38)
Dishion et al., 1999, p. 757

- “The combined parent and teen focus intervention programs did not reduce risk for substance use and delinquency, as hypothesized.”
- “Unfortunately, more complete long-term analysis revealed that negative effects were associated with the teen focus curriculum.”
Dishion et al.

• “In short, aggregating peers, under some circumstances, can produce short- and long-term iatrogenic effects on problem behavior.”
• Caveat: Such effect may not generalize to treatments for depressed youth (pure cases).
• “Early adolescence is an especially vulnerable time for peer effects on social development, at least for children at high risk for delinquency.”

Post-Script – Meta-Analysis

• Weiss et al. (2005) conducted a meta-analysis of 18 studies on the group treatment of antisocial youth
• They found little evidence that group-based approaches are associated with iatrogenic effects. This is an OVERALL EFFECT.
• The possible exception might be programs of interventions geared to early adolescents (Lilienfeld, 2007)

Hard-Headed Evaluation

• “Science can contribute to the understanding of which intervention strategies help, which are benign, and which actually have negative effects on youth” (Dishion et al., 1999, p. 755)
• “The scientific and professional community must be open to the possibility that intentions to help may inadvertently lead to unintentional harm” (Dishion et al., 1999, p. 763).
• Lilienfeld (2007): “By becoming award of [this kind of research] practicing clinicians can aspire to the laudable goals of the Hippocratic Oath and thereby fulfill their solemn mandate to do no harm.” (p. 66)
Evaluating Abstinence Education

Trenholm et al. (2008)


- Decreased 1991-2007, p < .05


Percentage of High School Students Who Were Currently Sexually Active,* 1991 – 2007

* Had sexual intercourse with at least one person during the 3 months before the survey.

* Decreased 1991-2007, p < .05

What are Abstinence Only Programs

- Teach the social, psychological, and health gains to be realized by abstaining
- Teach that abstinence is the expected standard for all school-aged children
- Teach that abstinence is the only certain way to avoid pregnancy, STIs, and other associated health problems
- And so on...

Examine Experimental Evidence for Impact of these Programs

- Random assignment of kids to either abstinence education program or control group
- Data collected in 1999-2000; 2000-2001; and 2001-2002
- Selection by lottery. Total N = 2057
- Follow-Up in 2005 and 2006 about 42 to 78 months post program

Overall Effects
(4 Programs Combined)
Palmgreen et al. (2001)

- Objective: To evaluate the effectiveness of one television media campaign designed to reduce marijuana use among an at-risk group, high sensation seekers.
- Sensation seeking is a trait associated with the need for novel and intense stimuli and the willingness to take risks to obtain such stimuli.
- Design: 32-month interrupted time series design.
What makes this a quasi-experimental design?

• One or more independent variables are being manipulated but participants are not randomly assigned to conditions.
• What is the textbook threat in this case?
• How plausible is this threat?

Interrupted Time Series Design

Extension of the pretest-posttest design
A stronger argument can be made to eliminate maturation, testing, and history effects
Can also be used with multiple groups with and without the treatment
Replicated Interrupted Time Series Design #2 (p. 323)

Group 1: $O_1 \rightarrow O_2 \rightarrow O_3 \rightarrow X_1 \rightarrow O_4 \rightarrow O_5$

Group 2: $O_6 \rightarrow O_7 \rightarrow O_8 \rightarrow O_9 \rightarrow X_2 \rightarrow O_{10}$

- Both groups are exposed to treatment but at different times.
- A stronger argument can be made to eliminate maturation, testing, and history effects.

One-Shot Case Study

$x \rightarrow o_1$

- Single Group Studied Once
- "...such studies have such a total absence of control as to be of almost no scientific value" (Campbell & Stanley, 1996, p. 6).
- Basic to scientific evidence is the process of comparison. There is no point of comparison here.