

What is the Evidence for Evidence-Based Programs?

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We often invoke the image of a pendulum to describe shifts in how our society prefers to deal with crime. At one end, the pendulum emphasizes punishment and incapacitation; at the other end, it represents treatment and rehabilitation. The fact that this pendulum is still swinging suggests that neither of these oversimplified extremes has been fruitful enough to hold public support for a sustained period of time.

Now there is evidence that the public perceptions are once again cycling back in favor of *treatment* as the primary goal of the criminal justice system. Psychologists Nathaniel Pallone and James Hennessy (2003) point to a series of large treatment initiatives in the United States over the past few years as evidence of what they refer to as the “Rebellion of 2000.” These initiatives include California’s Proposition 36, in which adults convicted of nonviolent drug possession offenses are given the option of participating in drug treatment in the community in lieu of incarceration; the governor of New York’s plan to reduce the length of prison terms for non-violent drug offenders, replace mandatory imprisonment with treatment, and grant judges greater discretion in handling drug-related charges; the burgeoning drug court movement, in which drug-abusing offenders who complete a prescribed period of community-based treatment (in addition to satisfying other conditions) can have their charges dismissed or conviction records expunged; and even the former drug czar General Barry McCaffrey’s apparent conversion in his final days in office, recommending that the emphasis of the war on drugs should shift in favor of prevention and treatment. We can add to these trends Oregon’s Senate Bill 267 and House Bill 3563, which are intended to improve offender rehabilitation and reduce recidivism by requiring that state funds target programs that are considered “evidence based.”

I am here today to thank you for recognizing that intuitive appeal is not a sufficient benchmark for determining whether a program is effective. Your awareness of this simple fact—and your willingness to act on it—has made Oregon a national leader in correctional policy. I’m also here in the hopes that, since you were willing to take such a bold step in the first place, I might persuade you to take one more.

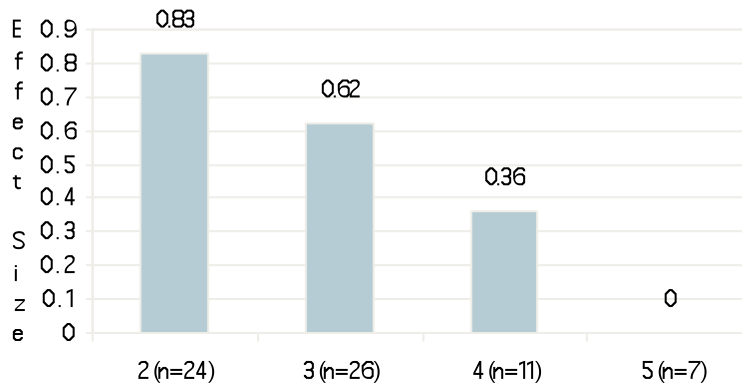
Senate Bill 267 defines an “evidence based program” as one that (1) incorporates significant and relevant practices based on scientifically based research, and (2) is cost effective. “Scientifically-based research” refers to research that (1) employs systematic, empirical methods based on observation or experiment, (2) involves rigorous data analyses, and (3) relies on measurements methods that provide reliable and valid data across evaluators, across multiple measurements, and across studies by the same or different investigators. These are, in fact, required features of rigorous studies, but they are not enough to prevent the adoption of ineffective programs.

The number of published (and unpublished) evaluations has spawned several systematic reviews of the correctional treatment literature (Lipton & Pearson, 1999; MacKenzie & Hickman, 1998; Phipps et al., 1999). These studies range substantially in methodological rigor. This is critical, because quality of research designs have been shown to account for more variance in outcomes than the actual intervention being evaluated (Wilson & Lipsey, 2001). In other words, defining what constitutes “evidence-based research” is more than just academic nitpicking; it represents very practical determinations of what works and what does not. And truly rigorous, experimental studies tell a different story than studies that are of low or even moderate quality.

In an article entitled “Does Research Design Affect Study Outcome?” Weisburd, Lum, and Petrosino (2001) categorized 68 correctional program evaluations according to a 1 to 5 scale of methodological rigor and compared the effect sizes obtained for each of the 5 groups of studies. Whereas the lower quality studies tended to show relatively strong effects on recidivism, the most rigorous evaluations (i.e., those employing true experimental designs) showed an average effect size of 0 (see Figure 1). In other words, the evaluations that provided the most valid test of the true efficacy of the programs being evaluated revealed that these programs had no effect on recidivism whatsoever. Drawing from a larger sample of experimental evaluations of offender interventions (published between 1982-2004),

Farrington and Welsh (2005) found that only 1 of 14 correctional interventions and 1 of 22 community-based interventions produced a statistically significant reduction in recidivism.

Figure 1: Study Quality & Effectiveness of Offender Programs (N=68) [Weisburd et al., 2001]



I was unsuccessful in locating a list of specific intervention studies that have been vetted thus far as meeting Oregon’s criteria for evidence based, but two of my colleagues and I have reviewed the studies listed in the National Registry of Evidence-Based Programs and Practices (NREPP) and our findings may serve as a cautionary tale for Oregon’s efforts (Wright, Zhang, & Farabee, 2009). Of the 31 studies that specifically targeted criminal justice populations, only five (16%) had a methodological rating of 3.5 or higher (based on a 4-point scale). Moreover, 68% of the studies had been authored by one or more of the proprietors of the program being studied. We don’t rely on tobacco company executives to give us the facts about smoking, and we shouldn’t rely on program developers to tell us how well their programs work.

The costs of low or vague research standards is particularly high when the subjects of interests are criminal offenders, I would urge you to limit the designation of “evidence based” to interventions that have been shown to be effective in studies meeting the following four criteria:

- 1) **Random assignment:** Subjects have an equal (or at least unbiased) probability of being assigned to either a treatment or control group.
- 2) **Intent-to-treat analysis:** Outcome analyses are based on initial group assignment, not merely completers.
- 3) **Independently evaluated:** The evaluation should be conducted by researchers not in any way affiliated with the program being studied.
- 4) **Replicated at least once:** To guard against spurious findings, or outcomes that may have been unique to the original population studied, the same intervention results should be replicated (also using random assignment) in another setting.¹

As I mentioned earlier, among offender treatment studies, the more rigorous a study is the less likely it is to show an effect on recidivism. The consequence of employing weak methodologies to evaluate correctional programs—or not evaluating them at all—is that we must continue to support them out of faith. If we instead required that any publicly funded offender program be evaluated using true experimental designs, we would likely narrow the field of “evidence-based” programs by more than 90%. Not only would this relieve taxpayers from bearing the burden of supporting ineffective programs, it would also help researchers identify directions for future intervention research.

Randomly assigning inmates to a treatment or control group, however, is often considered unethical because the control group is “deprived” of treatment. Those who raise such objections reveal their own biases that programs are effective because they are, well, programs. But this is a dangerous assumption not only because most programs are ineffective, but also because some well-meaning efforts have actually been shown to *increase* criminal behavior (see McCord, 2003). Without the use of rigorous experimental research designs, such adverse effects will go undetected.

¹ The need for multiple measures across studies is listed among the criteria stated in SB 267, though random assignment was not required.

My hope for Oregon is that its lawmakers will require that the phrase “evidence-based” serve as more than just a marketing slogan. By recognizing the need for a higher standard of evidence that includes the four criteria I have outlined today, you will substantially reduce the number of programs that will qualify for funding in the short term; but over the long term you will create a network of offender programs and practices that do what they are funded to do: reduce crime and change lives.

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