Northeastern

Evidence Translation for Crime Prevention: 'What Works' Report to New Advances

Brandon C. Welsh

Northeastern University and Harvard Medical School

National Academies of Sciences,
Engineering, and Medicine
Committee on Law and Justice
November 8, 2023

Aims

- To discuss research study on longer-term influences of the ‘what works’ report (Sherman et al. 1997)

- To examine new advances in evidence translation for crime prevention

What works report: background

Preventing Crime: What Works, What Doesn't, What's Promising (Sherman et al. 1997)

- Commissioned by US Congress
- Aim: to provide Congress with an independent review of the effectiveness of state and local CP programs funded by federal justice dept.
- Required to use "rigorous and scientifically recognized standards and methodologies"

Background (cont'd)

- Timing of release (Feb. 1997)
  - 1994 Violent Crime Act
  - US crime drop
  - Cusp of evidence-based movement in social and behavioral sciences
- What report said carried far more weight
  - At center stage was report's focus on the science of crime prevention and its relevance for public policy

Background (cont'd)

- Translated into immediate influence
  - Extensive press coverage: "most comprehensive study ever of crime prevention" (NY Times)
  - Subject of 4 Congressional hearings
  - Briefings to policymakers across US and abroad
  - Attracted support of charitable foundations and private donors to continue report's work
  - UK government's Crime Reduction Programme (£400 million, 3 years)

Summary of findings

- Report proved influential in helping to elevate both the scientific and public policy discourse on crime prevention
- It did so on 3 main fronts:

1. Rating evaluation designs (SMS)
2. Assessing research evidence
3. Communicating science

Rating evaluation designs

- Report reaffirmed: not all evaluation designs are equally valid; only designs that provide a high degree of confidence in observed effects should contribute to evidence base
- Evaluation designs need to be guided by the research question, not the other way around
- Trade-off between level of certainty about program effects and level of useful info from available research

Assessing research evidence

- Report moved beyond traditional narrative review and adopted empirical review method
- Established rules for drawing conclusions about what works, what does not work, what is promising
- Called attention to the provisional nature of science: scientific conclusions drawn today can be altered—even upended—with the results of new studies over time

Communicating science

- Report adopted 2 approaches (NASEM 2017):

1. Aggregation and translation

- Involves one-way communication
- Report, summary, website, hearings, meetings

2. Brokering

- An intermediary that bridges science & policy
- CP Effectiveness Program, Jerry Lee annual symposium, partnership with Campbell Collaboration

Communicating science (cont'd)

- Communication of science was at the heart of the mission of the project
  - It was central to the core components
- For rating evaluation designs, it was imperative that the scale be understandable to all
  - "the SMS can be criticized, but it has the virtue of simplicity. It can be improved, but at the cost of simplicity" (Farrington et al. 2002)

Communicating science (cont'd)

- For assessing research evidence, the communication of science was about much more than generating lists of what works…
- Vital to convey the provisional nature of science: knowledge "is always becoming more refined, and therefore no conclusion is permanent" (Sherman et al. 1998)
  - This principle is often overlooked in reviews
  - Not well understood outside of scientific community

New advances, new thinking in evidence translation

New mission/call for action

- Crime prevention for social impact and social justice
  - Advances crime prevention as a public good
  - Needed, achievable, and consequential for public policy

New advances (cont'd)

Achievements/opportunities

- Growing evidence base
  - Campbell Collaboration, Cochrane
- Multiple translational models
  - Including Communities That Care
- Large scale applications of EB practice
  - Washington State
  - Pennsylvania

New advances (cont'd)

Achievements/opportunities

- Science of implementation
  - Field of implementation science "is on the verge of having evidence-based implementation methods to reliably realize the promise of evidence-based programs in practice" (Fixsen et al. 2013)

New advances (cont'd)

Challenges

- Implementation, implementation…
  - Fidelity to the model, quality assurance
- Route to policy influence: "imposed use"
  - Work of Carol Weiss (e.g., Weiss et al. 2008)
- Attenuation of intervention effects
  - Scaling up evidence-based interventions in US public systems (Fagan et al. 2019)

New advances (cont'd)

Challenges

- Use of "off-the-shelf" techniques
  - Need to tailor to local context (Eck & Guerette 2014)
- Communication of science
  - Dynamic process

Appx 1: Rating evaluation designs

- Scientific Methods Scale
  - Rate methodological quality of each study's evaluation design (levels 1 to 5)
  - (a) provide a sound measure of overall internal validity and (b) easily be communicated
  - Grounded in work of Cook & Campbell (1979)
- Criticisms
  - Type II error
  - Threshold (level 3)

Appx 2: Assessing research evidence

- Used vote-count method, not SR
- "Our approach strikes a compromise between depth and breadth, without any compromise in scientific integrity" (Sherman et al. 1997)
- Criticisms
  - Methodological limitations
  - Generalizability of conclusions
  - Limited use to the practitioner: no recipe for how to replicate findings

Appx 3: Communicating science

- “The provisional nature of scientific findings is not an exception or fault within the progress of science. Revising the present state of knowledge is … the everyday business of researchers” (Bromme & Beelmann 2018)

Key sources

Bromme, R., & A. Beelmann (2018). Transfer entails communication: The public understanding of (social) science as a stage and a play for implementing evidence-based prevention knowledge and programs. *Prevention Science*, 19, 347-357.

Cook, T.D., & D.T. Campbell (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Chicago: Rand McNally.

Eck, J.E., & R.T. Guerette (2014). Place-based crime prevention: Theory, evidence, and policy. In B.C. Welsh & D.P. Farrington (Eds.), *The Oxford handbook of crime prevention*. New York: Oxford University Press.

Fagan, A.A., et al. (2019). Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities. *Prevention Science*, 20, 1147-1168.

Farrington, D.P., et al. (2002). The Maryland scientific methods scale. In L.W. Sherman, D.P. Farrington, B.C. Welsh, & D.L. MacKenzie (Eds.), *Evidence-based crime prevention*. New York: Routledge.

Fixsen, D.L., et al. (2013). Statewide implementation of evidence-based programs. *Exceptional Children*, 79, 213-230.

National Academies of Sciences, Engineering, and Medicine (2017). *Communicating science effectively: A research agenda*. Washington, DC: National Academies Press.

Key sources (cont'd)

Piza, E.L., & B.C. Welsh (Eds.) (2022). *The globalization of evidence-based policing: Innovations in bridging the research-practice divide*. New York: Routledge.

Shadish, W., T.D. Cook, & D.T. Campbell (2002). *Experimental and quasi-experimental designs for general causal inference*. Boston: Houghton-Mifflin.

Sherman, L.W., et al. (1997). *Preventing crime: What works, what doesn't, what's promising*. Washington, DC: Office of Justice Programs.

Sherman, L.W., et al. (1998). *Preventing crime: What works, what doesn't, what's promising*. Research in Brief, July. Washington, DC: National Institute of Justice.

Shonkoff, J.P., & S.N. Bales (2011). Science does not speak for itself: Translating child development research for the public and its policymakers. *Child Development*, 82, 17-32.

Weiss, C.H., et al. (2008). The fairy godmother—And her warts: Making the dream of evidence-based policy come true. *American Journal of Evaluation*, 29, 29-47.

Welsh, B.C., & A.B. Wexler (2019). Elevating the scientific and public policy discourse on crime prevention: Taking stock of the 'what works' report's influence 20 years on. *Policing: A Journal of Policy and Practice*, 13, 271-285.

Welsh, B.C., S.N. Zane, & D.P. Mears (Eds.) (2023). *The Oxford handbook of evidence-based crime and justice policy*. New York: Oxford University Press.