What Works? Comparing the Blueprints List of "Evidence-Based" Prevention Strategies with Other Lists

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How do you know if a program is "evidence-based"?

On the one hand....



On the other hand...

Ask two questions:

- Does it work?
- How do you know it works? What is the evidence for its effectiveness?

There are many types of evidence Evidence varies depending on the evaluation question

- Is the intervention grounded in theory, practical and logical?
- 2. How difficult is it to implement the intervention as designed?
- a. Does the intervention have experimental evidence of the intended effect on the targeted outcome?
- What is the size of the effect on the outcome?
- Is the intervention cost effective?
 - Is it valued sufficiently to be given a high social, economic and political priority for funding?
- Can the program be replicated with fidelity? Can it be integrated into existing service systems with fidelity?

Evidence considered by Blueprints

- Intervention Specificity (screened by staff)
 Questions 1 & 2
- Evaluation Quality
 Question 3
- Intervention Impact
 - Question 4 & 6
- System Readiness (Considered after rated Model/Promising)
 - Question 5

Blueprints Criteria for Model+ Rating

- <u>Efficacy Evaluation Design</u>: Randomized Controlled Trial (RCT)
- Impact (over all studies): Statistically significant and substantive positive effects
- <u>Sustainability</u>: Effect sustained for at least 1 year post-intervention
- Independent Replication: At least 1 with RCT*
- □ All studies are well conducted
- Address threats to internal validity
- $\hfill\square$ No known health-compromising side effects

*Proposed but not yet approved by BP Board. Currently allow RCT or QED study

Blueprints Criteria for Model Program

- Efficacy/Effectiveness evaluation design: RCT
- Impact (across all studies): Statistically
- significant and substantive positive effects

 <u>Sustainability</u>: Effect sustained for at least 1
- year post-intervention
- Replication (independent evaluator or not): At least 1RCT/QED study
- All RCT/QEDs are well conducted/ address threats to internal validity
- No known health-compromising side effects

Blueprints Criteria for Promising Programs

- Efficacy/Effectiveness evaluation design: 1 RCT or 2 QEDs
- Studies are well conducted/adequately address threats to internal validity
- Impact: Statistically significant and substantive
- positive effects (predominantly over all studies)
 <u>Sustainability</u>: Not required
- <u>Replication</u>: Not required
- □ No known health-compromising side effects

Blueprint Review Process

- A Systematic Review Method*
- Inclusive search for all studies: reduce potential selection bias
- Explicit eligibility criteria
- Studies screened by these criteria
- Review includes all screened studies
- Quantitative review: pre-established guidelines/rules
- Meta-analysis when appropriate (3+ quality studies)
- Detailed write-up of review and decision
- *Campbell Collaboration, www.campbellcollaboration.org, Welsh and Farrington, 2006

Developmental Outcomes Considered by Blueprints

- Behavior -54
- Antisocial Behavior 47
- Positive Behavior 7
- Educational Skills and Attainment 19
- Emotional Well-Being 23
- Physical Health 6
- Positive Relationships 16

Blueprint Database Fact Sheet

- Program Name and Description
- Developmental/Behavioral Outcomes
- Risk/Protective Factors Targeted
- Risk/Protective Factors Impacted
- Contact Information/Program Support
- Target Population
- Program Effectiveness (Effect Size)
- Operating Domain: Individual, Family, School, Community

Blueprint Database Fact Sheet

Logic/Theory Model

- Program Costs:
 - Unit Cost, Start-up, Implementation, Fidelity Monitoring, Other, Budget Tool
- Cost Benefit/Return on Investment (when available):
 Net Unit Cost-Benefit, Benefits
- □ Funding: Overview, Financing Strategies
- Program Materials
- References

Evidence-Based Programs and Practices

Evidence-based Programs: Individual "brand name" interventions Explicit theoretical rationale & change model, targeted

- population, program manuals, training, TA, fidelity checklists Proven effective in a systematic review of their experimental evaluations (ideally with meta-analysis)
- e.g., LST, NFP, MST
- Evidence-based Practices:
- Generic intervention strategies or policies proven effective, on average, in a systematic review of the experimental evaluations of the group of programs using that generic strategy (meta-analysis)
- e.g., skills building, family therapy interventions, CBT

Other "What Works" Lists

- National Registry of Evidence-Based Programs and Practices (NREPP)
- Office of Justice Programs Crime Solutions AND
- Office of Juvenile Justice and Delinquency Prevention Model Programs Guide (MPG)
- Best Evidence Encyclopedia (BEE)
- U.S. Department of Education What Works Clearinghouse (WWC)

Other "What Works" Lists

- The Centers for Disease Control Community Guide
- Examines physical and mental health, violence, and substance use/ abuse
- Goal: identify evidence-based practices and policies using meta analyses
- The Coalition for Evidence-based Policy (Top Tier) Now managed by the Laura and John Arnold Foundation
 - Social programs affecting education, employment, and crime
 - Goal: assist Congressional policy makers in decision-making and spending

National Registry of Evidence-Based Programs and Practices (NREPP): http://www.nrepp.samhsa.gov/01_landing.aspx

- Outcomes of Interest: Mental health and substance use/abuse
- Types: Programs and Practices
- Rating System: rates 'Quality of Research' and 'Readiness for dissemination' on 0-4 scale Criteria
- Type of evaluation design: 1 RCT or QED; must have comparison group and pre/post tests <u>Quality of Research</u>: rated 0-4 on: validity and reliability of measures, appropriate analysis, low attrition and missing data, attention to confounding variables, implementation fidelity
- Readiness to Disseminate: Used to be required (now gives priority to these programs) Rated 0-4 on availability of materials, training and technical assistance, and quality
- Replication: Not required Sustainability: Not required
- Strengths: comprehensive, provides many details about programs, including costs and
- Weaknesses: does not recommend or discourage particular programs; difficult to interpret scoring system; not updated with new (or negative) findings

Office of Justice Programs - Crime Solutions.Gov http://www.crimesolution

- Outcomes of Interest: Crime, delinquency, victimization, corrections, courts, police
- Types: Programs and Practices
- Rating System: Effective, Promising, No Effects
- Criteria
- Type of evaluation design: 1RCT or QED (with a comparison group)
- Rates studies on sample size, reliable and valid measures, follow-up period, considers confounding variables, good implementation fidelity, size of effects
- Effective Programs have more rigorous study designs than Promising Programs; neither category can show evidence of harm
- Readiness to Disseminate: Not required
- Replication: Not required
- Sustainability: Not required
- Strengths: comprehensive, specific rating criteria, user-friendly website, updated, identifies ineffective interventions
- Weaknesses: less rigorous criteria; no requirement of readiness to disseminate

Best Evidence Encyclopedia (BEE) http://www.bestevidence.org

- Outcomes of Interest: Educational: reading, math, school-wide reform
- Types: Programs and practices
- Criteria/Ratings system: based on meta-analyses
- Strong Evidence: at least 2 studies, 1 large RCT or QED and one other RCT or QED with total sample size of >500 students and effect size of >0.20
- Moderate Evidence: at least 2 large RCT or QED or multiple smaller studies with a total sample size of >500 students and effect size of >0.20
- Limited Evidence/Modest Effects: same as above with effect size between 0.10 and 0.19
- Replication: Not required
- Sustainability: Not required; program duration must be >12 weeks
- Strengths: regularly updated
- Weaknesses: limited information about each program, can't search website

U.S. Dept. of Education - What Works Clearinghouse http://ies.ed.gov/ncee/wwc/findwhatworks.aspx

- Outcomes of Interest: Education: academic achievement, school drop ou
- Types: Programs and Practices Criteria
- Meets Evidence: 1 RCT with low (<50%) and non-differential attrition and participant
- Meets with Reservations: at least one QED (with a comparison group) or less well implemented RCT study with participant equivalence at baseline
- Does not Meet Standards: high attrition, groups not equivalent at baseline, measures were not valid or reliable, confounding factors not controlled
- Effectiveness (based on outcomes): positive, potentially positive, mixed, no discernible effects, potentially negative, or negative
- Replication: not required
- Sustainability: not required
- Strengths: updated, good search tools, many program details, identifies harmful programs Weaknesses – no replication or sustained effects required; website not very user friendly; rating system difficult to understand

Juli	nary of the		menu
List	Outcomes	Types of Interventions	Readiness for Dissemination?
Blueprints	Education; Physical and mental health; Antisocial and positive behavior	Programs	Must be ready for replication (imp. tools)
NREPP	Mental health, Substance use	Programs Practices	-Must be ready for replication (imp. tools) -Rates readiness (0 to 4)
Crime Solutions	Crime, victimization, criminal justice system	Programs Practices	No requirement
BEE	Education	Programs Practices	No requirement
WWC	Education	Programs Practices	No requirement?

Summary of the Lists & Criteria						
	Required Number/ Type of Studies	Sustained Effects?	Programs with Harmful Effects?	Overall Research Design Rigor		
Blueprints	Model and Model +: 2 RCTs or 1 RCT & 1 QED <u>Promising</u> : 1 RCT or 2 QEDs	<u>Model and</u> <u>Model+</u> : 1 year <u>Promising</u> : No	Excluded	HIGH		
NREPP	1 RCT or QED *with comparison group	No	May be included	VARIED (Rated 0 to 4)		
Crime Solutions	1 RCT or QED *with comparison group	No	Identified as having "no effect"	MEDIUM		
BEE	2 RCTs or QEDs *with comparison group	No	May be included	MEDIUM/HIGH		
wwc	Meets Evidence: 1 RCT Meets w/ Reservations: 1 RCT or QED	No	Identified as "negative" or potentially negative	MEDIUM		



