Campbell Systematic Reviews
2013:5
First published: May, 2002
Last updated: June, 2012
Search executed: December, 2011

Scared Straight and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency: A Systematic Review

Anthony Petrosino, Carolyn Turpin-Petrosino, Meghan E. Hollis-Peel, Julia G. Lavenberg

THE CAMPBELL COLLABORATION

Colophon

Title	Scared Straight and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency: A Systematic Review
Institution	The Campbell Collaboration
Authors	Petrosino, Anthony Turpin-Petrosino, Carolyn Hollis-Peel, Meghan E. Lavenberg, Julia G.
DOI	10.4073/csr.2013.5
No. of pages	55
Last updated	June, 2012
Citation	Petrosino A, Turpin-Petrosino C, Hollis-Peel M, Lavenberg JG. Scared Straight and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency: A Systematic Review Campbell Systematic Reviews 2013:5 DOI: 10.4073/csr.2013.5
Co-registration	This review is co-registered within both the Cochrane and Campbell Collaborations. A version of this review can also be found in the Cochrane Library.
ISSN	1891-1803
Editors for this review	Editor: David Wilson Managing editor: Charlotte Gill
Support/funding	External sources of support: Smith-Richardson Foundation grant (to University of Pennsylvania Graduate School of Education) USA, Robert Boruch, Principal Investigator; Mellon Foundation grant (to the American Academy of Arts & Sciences, Center for Evaluation), USA, Frederick Mosteller (Principal Investigator); Home Office, Research & Statistics Directorate (to Cambridge University Institute of Criminology), UK, David Farrington, Principal Investigator; Smith-Richardson Foundation grant (to University of Pennsylvania Jerry Lee Center of Criminology) USA, Lawrence Sherman, Principal Investigator; Campbell Collaboration contract to WestEd, Anthony Petrosino, Principal Investigator Internal sources of support: American Academy of Arts and Sciences USA (1999-2002); Harvard Graduate School of Education USA (1999-2002); WestEd, 2011-2012
Potential conflicts of interest	Two of the authors published an article in the journal Crime & Delinquency that indicated a harmful effect for these programs, based on preliminary analyses. We believe the potential for bias toward 'replicating' the earlier Crime & Delinquency findings here is reduced by the explicit and transparent review methods used.

Corresponding author

Anthony Petrosino
WestEd
300 Unicorn Park Dr., 5th Floor
Woburn, MA 01801
USA
E-mail: apetros@wested.org

Campbell Systematic Reviews

The Campbell Collaboration (C2) was founded on the principle that systematic reviews on the effects of interventions will inform and help improve policy and services. C2 offers editorial and methodological support to review authors throughout the process of producing a systematic review. A number of C2's editors, librarians, methodologists and external peer-reviewers contribute.

The Campbell Collaboration
P.O. Box 7004 St. Olavs plass
0130 Oslo, Norway
www.campbellcollaboration.org

Table of contents

Abstract

CONSUMER SYNOPSIS

Programs like 'Scared Straight' involve organized visits to prison facilities by juvenile delinquents or children at risk for becoming delinquent. The programs are designed to deter participants from future offending by providing first-hand observations of prison life and interaction with adult inmates. Results of this review indicate that not only does it fail to deter crime but it actually leads to more offending behavior. Government officials permitting this program need to adopt rigorous evaluation to ensure that they are not causing more harm to the very citizens they pledge to protect.

EXECUTIVE SUMMARY AND ABSTRACT BACKGROUND

'Scared Straight' and other programs involve organized visits to prison by juvenile delinquents or children at risk for criminal behavior. Programs are designed to deter participants from future offending through first hand observation of prison life and interaction with adult inmates.

OBJECTIVES

To assess the effects of programs comprising organized visits to prisons by juvenile delinquents (officially adjudicated or convicted by a juvenile court) or pre-delinquents (children in trouble but not officially adjudicated as delinquents), aimed at deterring them from criminal activity.

SEARCH STRATEGY

Searches by the first author in identifying randomized field trials 1945-1993 relevant to criminology were augmented by structured searches of 29 electronic databases, including the Campbell SPECTR database of trials (through 2003) and the Cochrane CCTR (through 2011). Experts in the field were consulted and relevant citations were followed up.

SELECTION CRITERIA

Studies that tested the effects of any program involving the organized visits of juvenile delinquents or children at-risk for delinquency to penal institutions were included. Studies that included overlapping samples of juvenile and young adults (e.g. ages 14-20) were also included. We only considered studies that randomly or quasi-randomly (i.e. alternation) assigned participants to conditions. Each study had to have a no-treatment control condition with at least one outcome measure of "post-visit" criminal behavior.

DATA COLLECTION AND ANALYSIS

We report narratively on the nine eligible trials. We conducted one meta-analysis of post-intervention offending rates using official data. Information from other sources (e.g. self-report) was either missing from some studies or critical information was omitted (e.g. standard deviations). We examined the immediate post-treatment effects (i.e. 'first-effects') by computing Odds Ratios (OR) for data on proportions of each group re-offending, and assumed both fixed and random effects models in our analyses.

RESULTS

The analyses show the intervention to be more harmful than doing nothing. The program effect, whether assuming a fixed or random effects model, was nearly identical and negative in direction, regardless of the meta-analytic strategy.

AUTHOR'S CONCLUSIONS

We conclude that programs like 'Scared Straight' are likely to have a harmful effect and increase delinquency relative to doing nothing at all to the same youths. Given these results, we cannot recommend this program as a crime prevention strategy. Agencies that permit such programs, however, must rigorously evaluate them not only to ensure that they are doing what they purport to do (prevent crime) – but at the very least they do not cause more harm than good to the very citizens they pledge to protect.

1 Background

In the 1970s, inmates serving life sentences at a New Jersey (USA) prison began a program to 'scare' or deter at-risk or delinquent children from a future life of crime. The program, known as 'Scared Straight,' featured as its main component an aggressive presentation by inmates to juveniles visiting the prison facility. The presentation depicted life in adult prisons, and often included exaggerated stories of rape and murder (Fickenauer 1982). A television documentary on the program aired in 1979 provided evidence that 16 of the 17 delinquents remained law-abiding for three months after attending 'Scared Straight' – a 94% success rate (Fickenauer 1982). Other data provided in the film indicated success rates that varied between 80% and 90% (Fickenauer 1982). The program received considerable and favorable media attention and was soon replicated in over 30 jurisdictions nationwide, resulting in special Congressional hearings on the program and the film by the United States House Committee on Education and Labor, Subcommittee on Human Resources (US House Committee on Education and Labor 1979).

The underlying theory of programs like 'Scared Straight' is deterrence. Program advocates and others believe that realistic depictions of life in prison and presentations by inmates will deter juvenile offenders (or children at risk for becoming delinquent) from further involvement with crime. Although the harsh and sometimes vulgar presentation in the earlier New Jersey version is the most famous, inmate presentations are now sometimes designed to be more educational than confrontational but with a similar crime prevention goal (Fickenauer 1999; Lundman 1993). Some of these programs featured interactive discussions between inmates as speakers who describe their life experiences and the current reality of prison life have a rather long history, in the United States at least (Brodsky 1970; Michigan D.O.C. 1967). It is not surprising why such programs are popular: they fit with common notions by some on how to prevent or reduce crime (by 'getting tough'); they are very inexpensive (a Maryland program was estimated to cost less than $1 US per participant); and they provide one way for incarcerated offenders to contribute productively to society by preventing youngsters from following down the same path (Fickenauer 1982).

A randomized controlled trial of the New Jersey program was published in 1982, however, reported no effect on the criminal behavior of participants in comparison with a no treatment control group (Fickenauer 1982). In fact, Fickenauer reported

that participants in the experimental program were more likely to be arrested. Other randomized trials reported in the USA also questioned the effectiveness of 'Scared Straight'-type programs in reducing subsequent criminality (Greater Egypt Regional Planning & Development Commission, 1979; Lewis, 1983). Consistent with these findings, reviewers of research on the effects of crime prevention programs have not found deterrence-oriented programs like 'Scared Straight' effective (Sherman et al. 1997; Lipset 1992). In fact, the University of Maryland's well-publicized review of over 500 crime prevention evaluations listed 'Scared Straight' as one program that doesn't work (Sherman et al. 1997). The Surgeon General's Report on Youth Violence reviewed preventive and other strategies and reached the same conclusion about "Scared Straight" (US Department of Health and Human Services 2001).

Despite the convergence of evidence from studies and reviews, 'Scared Straight' type programs remain popular and continue to be used in the United States (Finckenauer and Gavin 1999). For example, a program in Carson City, Nevada (USA) brings juvenile delinquents on a tour of an adult Nevada State Prison (Scripps 1999). One youngster claimed that the part of the tour that made the most impact on him was 'All the inmates calling us for sex and fighting for our belongings' (Scripps 1999). The United Community Action Network has its own program called 'Wisetalk' in which at-risk youth are locked in a jail cell for over an hour with 4-5 parolees. They claim that only 10 of 300 youngsters exposed to this intervention have been rearrested (United Community action Network 2001). In 2001, a group of guards – apparently without the knowledge of administrators – strip-searched Washington DC students during their tours of a local jail under the guise of that they were using "a sound strategy to turn around the lives of wayward kids" – claiming the prior success of 'Scared Straight' (Blum and Woodlee 2001).

'Scared Straight' and other 'kids visit prison' programs are also used in several other nations. For example, it is called the 'day in prison' or 'day in gaol' in Australia (O'Malley et al 1993), 'day visits' in the United Kingdom (Lloyd 1995), and the 'Ullersmo Project' in Norway (Storvoll and Hovland 1998). Hall (Hall 1999) reports positively on a program in Germany designed to scared straight young offenders with ties to Neo-Nazi and other organized hate groups. The program has been also tried in Canada (O'Malley et al 1993).

In 1999, 'Scared Straight: 20 Years Later' was shown on United States television and claimed similar results to the 1979 film (UPN 1999; 'Kids and Crooks,' 1999). In this version, the film reports that 10 of the 12 juveniles attending the program have remained offense free in the three months follow-up (Muhammed 1999). As in the 1979 television program, no data on a control or comparison group of young people were presented. Positive reports and descriptions of Scared Straight type programs have also been reported elsewhere (e.g., in Germany [Hall 1999], and in Florida

[Rasmussen 1996]), although it is sometimes embedded as one component in a multi-component juvenile intervention package (Trusty 1995; Rasmussen 1996). In 2000, Petrosino and his colleagues reported on a preliminary systematic review of nine randomized field trials, drawing on the raw percentage differences in each study. They found that programs such as 'Scared Straight' generally increased crime between 1% and 28% in the experimental group when compared to a no-treatment control group. In 2002, our formal Campbell review was published (simultaneously with the Cochrane Collaboration) – updating the 2000 work and utilizing more sophisticated meta-analytic techniques. We reported similarly negative findings for Scared Straight and juvenile awareness programs. This document provides the most recent update of that work via new and extended searches through December 2011, additional analyses, and edits where necessary.

Despite the results of this review and updates, Scared Straight and similar programs continue to be promoted as a crime prevention strategy. For example (and as discussed in the policy brief published by the Campbell Collaboration in 2003), Illinois' then-Governor Rod Blagojevich signed a bill into law in 2003 that mandated the Chicago Public School system set up a program called "Choices" (United Press International 2003). The program would identify students at risk for committing future crime and set up a program to give them "tours of state prison" to discourage any future criminal conduct (Long and Chase, 2003). More recently, the Arts and Entertainment (A&E) station has been running a weekly series entitled, "Beyond Scared Straight." Created by the producer of the original Scared Straight program (Arnold Shapiro), the program is now the highest rated in A&E's history. The success of the television show has renewed interest in Scared Straight and similar programs as a crime prevention strategy (e.g., Dehnart, 2011) but has also resulted in criticism that it ignores a long history of scientific evidence (e.g., Robinson and Slowikowski, 2011).

The question about whether Scared Straight and similar programs has a crime deterrent effect is best answered by examining the existing scientific evidence. Of course, prior research is no guarantee that interventions will work (or not work) in a future setting. But a reader might ask herself the following question upon reading the results of this systematic review: would I want a doctor to prescribe a treatment for my child that has the same track record of research results?

2 Objectives

To assess the effects of programs comprising organized visits to prisons of juvenile delinquents (officially adjudicated or convicted by a juvenile court) or pre-delinquents (children in trouble but not officially adjudicated as delinquents), aimed at deterring them from criminal activity.

3 Methodology

3.1 Criteria for considering studies for this review

3.1.1 Types of studies

Only those studies that used random or "seemingly" (i.e. quasi) random procedures (i.e. alternating every other case to one group or odd/even assignment) to assign participants were included, provided they had a no-treatment control group.

3.1.2 Types of participants

Only studies involving juveniles, i.e. children 17 years of age or younger, or overlapping samples of juveniles and young adults (e.g. "ages 13-21"), were included. There was only one such study in this review and the authors used an upper age range of 19 years (Locke 1986). Studies with delinquents and/or pre-delinquents were included.

3.1.3 Types of intervention

Only studies that featured as its main component a visit by program participants to a prison facility were included. Most of the programs included a presentation by the inmates, ranging from graphic (Finckenauer 1982) to educational (Cook 1992). Programs sometimes featured an orientation session (living as a prisoner for 8 hours, etc.) or a tour of the facility.

3.1.4 Types of outcome measures

Studies had to include at least one outcome of subsequent offending behavior, as measured by such indices as arrests, convictions, contacts with police, or self-reported offences. The interest of citizens, policy and practice decision-makers, media, and the research community is in whether 'Scared Straight' and other 'kids visit prison' programs have any effect on these measures. Although we do not analyze them, we list other 'non-crime; measures and their effects (e.g. attitudinal, educational) reported by evaluators in case subsequent reviewers in the Cochrane or Campbell Collaborations require them to identify potentially eligible studies. Such a

list can also be helpful in identifying any unintended benefits or consequences of the program.

3.2 SEARCH STRATEGY FOR IDENTIFICATION OF STUDIES

In order to minimize potential for publication bias (the possibility journals are more likely to publish findings that reject the null hypothesis and find programs to be more effective than unpublished literature generally does), we conducted a search strategy designed to identify published and unpublished studies. We also conducted a comprehensive search strategy to minimize potential for discipline bias, i.e. evaluations reported in criminological journals or indexed in field-specific abstracting data bases might differ from those reported in psychological, sociological, social service, public health or educational sources.

First, randomized experiments were identified from a larger review of field trials in crime reduction conducted by the first author (Petrosino 1997). Petrosino had used the following methods to find more than 300 randomized experiments: (1) hand search (i.e. visually inspecting the entire contents) of 29 leading criminology or social science journals; (2) checking the citations reported in the 'Registry of Randomized Experiments in Criminal Sanctions' (Weisburd 1990); (3) detailed electronic searches of Criminal Justice Abstracts, Sociological Abstracts and Social Development and Planning Abstracts (Sociofile), Education Resource Information Clearinghouse (ERIC) and Psychological Abstracts (PsycINFO); (4) searches by information specialists of 18 bibliographic databases, including the National Criminal Justice Reference Service (NCJRS); (5) an extensive mail campaign with over 200 researchers and 100 research centers; (6) published solicitations in association newsletters; (7) tracking of references in over 50 relevant systematic reviews and literature syntheses; and (8) tracking of references in relevant bibliographies, books, articles, and other documents. More detail about these search methods can be found in Petrosino (Petrosino 1997) covered literature with a publication date between January 1, 1945 and December 31, 1993. Seven randomized trials meeting the eligibility criteria were identified from this sample. Second, we augmented this work with searches designed to uncover experiments missed by Petrosino (Petrosino 1997) and to cover more recent literature (1994-2001). These methods included: (1) broad searches of the Campbell Collaboration Social, Psychological, Educational & Criminological Trials Register (C2-SPECTR) developed by the U.K. Cochrane Centre and now supervised by the University of Pennsylvania Graduate School of Education (Petrosino et al 2000); (2) check of citations from more recent systematic or traditional reviews to provide coverage of more recent studies (e.g. Sherman et al 1997; Lipsey and Wilson 1998); (3) citation checking of documents relevant to 'Scared Straight' and like programs (e.g. Finckenauer and Gavin 1999); (4) email correspondence with investigators; and (5) broad searches of the Cochrane Controlled Trials Register [CENTRAL] in the Cochrane Library (Issue 1, 2002). By broad searches, we mean that we tried to first

identify studies relevant to crime or delinquency and then visually scanned the citations or abstracts to see if any were relevant to this intervention. For example, we used words like 'crime,' 'justice,' 'law,' 'offender,' 'delinquency,' and so on to identify a large potential pool of studies and then went through these to determine if any were relevant to this review.

Third, we decided to conduct a more specific search of 14 available electronic databases relevant to the topic area. Many of these include published and unpublished literature (e.g. dissertations or government reports). Searches were done online using available Harvard University resources or other databases freely searchable via the Internet. Several trips were made to the University of Massachusetts, Lowell to use Criminal Justice Abstracts and other Silver Platter data bases not accessible at Harvard University or via the Internet. The bibliographic databases and the years searched were:

- Criminal Justice Abstracts, 1968-September 2001
- Current Contents, 1993-2001
- Dissertation Abstracts, 1981-August 2001
- Education Full Text, June 1983-October 2001
- ERIC (Education Resource Information Clearinghouse), 1966-2001
- GPO Monthly (Government Printing Office Monthly), 1976-2001
- MEDLINE, 1966-2001
- National Clearinghouse on Child Abuse and Neglect (through 2001)
- NCJRS (National Criminal Justice Reference Service), through 2001
- Political Sciences Abstracts, 1975-March 2001
- PAIS International (Public Affairs Information Service), 1972-October 2001
- PsychINFO (Psychological Abstracts) 1987-November 2001
- Social Sciences Citation Index, February 1983-October 2001
- Sociofile (Sociological Abstracts and Social Planning and Development Abstracts) January 1963-September 2001

In addition, the Cochrane Developmental, Psychosocial, and Learning Disorders Group (the editorial group that handled the inaugural review and is responsible for the simultaneous Cochrane review) conducted searches of its specialized trial register. This trial register is broad, covers a wide range of bibliographic databases, and is international in scope. Details on searches used by the SDPLDG to build and maintain its register are provided in the Cochrane Library (2003, Issue 4).
We anticipated that the amount of literature on 'Scared Straight' would be of moderate size – and that our best course of action would be to identify all citations relevant to the program and screen them for potential leads to eligible studies. This removed the need to include keywords for identifying randomized trials (e.g. 'random assignment') in our searches. After several trial runs, we found that nearly all documents used phrases like 'Scared Straight' or 'juvenile awareness' in the title or abstract of the citation. Therefore, the following searches were run in each relevant database to identify relevant citations:

- ‘scared straight’
- (‘prison’ or ‘jail’ or ‘reformatory’ or ‘institution’) and (‘orientation’ or ‘visit’ or ‘tour’)
- ‘prisoner run’ or ‘offender run’ or ‘inmate run’
- ‘prison awareness’ or ‘prison aversion’ or ‘juvenile awareness’
- (‘rap session’ or ‘speak out’ or ‘confrontation’) and (‘prisoner’ or ‘lifer’ or ‘inmate’ or ‘offender’)

3.2.1 Search Methods Update (2003)

We extended our searches for all previously mentioned databases through to November 2003. This includes recent searches of both C2SPECTR and CENTRAL. We also accessed resources provided by the Campbell Crime and Justice Group at www.aic.gov.au/campbellcj under “Searching for Studies.” In addition, we took advantage of access to bibliographic databases made available since the Inaugural Review publication. We conducted new searches at the Chelmsford Public Library, via Bridgewater State College’s online access, and at the University of Massachusetts. We searched all available years in new databases. These were:

- Expanded Academic ASAP, 1980-2003
- Social Work Abstracts, 1977-2003.
- Social Service Abstracts, 1980-2003.

3.2.2 Search Methods Update – Search Methods Update (2012)

We extended our searches for the following databases through to December 2011:

- Academic Search Premier
- Cochrane CENTRAL (via University of Pennsylvania Library)
- Criminal Justice Abstracts
- Directory of Open Access Journals
- Dissertations and Theses (ProQuest)
- Education FullTExt
- ERIC (Proquest)
- Google Scholar
- HeinOnline
- Illinois Researcher Information Service (IRIS)
- International Bibliography of the Social Sciences (limited to January 2001 to December 31, 2011)
- MEDLINE (Ovid)
- National Criminal Justice Reference Service Abstracts Database (NCJRS)
- Public Affairs Information Service (PAIS)
- PsycArticles
- PsycINFO

- SCOPUS Science Direct
- Scandanavian Research Council for Criminology
- Sociological Abstracts
- SSCI/Web of Science

Additionally, forward searches were conducted using Google Scholar of all included studies and previous systematic and narrative reviews to identify studies that cited the original pieces.

4 Methods of the review

4.1 SELECTION OF TRIALS

The search methods (excluding the Internet searches, which generated thousands of websites) generated over 500 citations, most of which had abstracts. Anthony Petrosino (AP) initially screened these citations, determining that 30 were evaluation reports. AP and Carolyn Turpin-Petrosino (CTP) independently examined these citations and agreed that 11 were potential randomized trials. All reports were obtained. Upon inspection of the full text reports, we excluded two studies. One study was excluded because it did not include any post-program measure of offending. This was an evaluation of the 'Project Aware' program conducted in a Wisconsin prison (Dean 1982). Attempts to contact the author or retrieve these data from any other reports by the Wisconsin Department of Corrections have been unsuccessful. A second study of 'Stay Straight,' conducted in Hawaii, was also excluded due to the absence of random assignment (Chesney-Lind 1981). After the two exclusions, we were left with nine randomized trials. We did not find any ongoing trials.

4.1.1 Selection of Trials Update (2003)

Our search strategies resulted in relatively few citations to new literature; for example, some of these were to our own earlier published reviews and papers. AP scanned each citation and determined that none were to trials relevant to this review. A positive descriptive report was identified of a juvenile awareness program involving aggressive students taken to prison (O'Donnell and White 2001), but no evaluative data were reported. In the process of this update, we did learn of an evaluation of a "Scared Straight" program for truants, but this did not involve randomization (as we learned of this through a journal's peer review process, we cannot yet reveal the authors' names or citation. We have been told that this evaluation is in the journal's "revise and resubmit" stage, and once published, we will cite it as an excluded study).

4.1.2 Selection of Trials Update (2012)

Our most recent search strategies resulted in relatively few citations to new literature. Often these were to our own earlier published reviews and papers as was the case in the previous review update. Meghan Hollis-Peel (MHP) scanned each citation and determined that none were to trials relevant to this review. An evaluation of a "Scared Straight" program for truants (as discussed in the previous section) was discovered, but this study was excluded as it did not involve randomization (Bazemore *et al.* 2004). Another study was excluded, because it did not include appropriate outcome measures; it measured change in attitudes toward jail or prison (Feinstein 2005). A more recent systematic review (Klenowski *et al.* 2010) was found that included narrative descriptions of 10 studies, but it identified no new studies eligible for inclusion here. Two articles discussed a related "experiment" (Blunkett 2008; Wilson and Groombridge 2010), but upon further examination these studies did not use experimental methods or eligible outcomes. Another positive descriptive report was identified of a juvenile awareness program involving 'fear appeal messages' (Windell and Allen 2005), but no evaluative data were provided. Thus, no new evaluations were identified for inclusion.

4.2 ASSESSMENT OF METHODOLOGICAL QUALITY

There are many factors in which to grade the quality of studies. Complicating any assessment of methods is that review teams, by and large, must rely on written reports by investigators. In some cases, methodology sections may be briskly written (sometimes due to journal space requirements) and key features of design and analysis may be deleted or considerably condensed. We determined that four factors of methodological quality were most critical to criminological experiments and practical to extract from the experimental reports. These were:

1) Randomization integrity

Did the investigators report that randomization of participants to experimental or control conditions experience serious violation or subversion of random assignment procedures?

2) Attrition from initial sample

Did the investigators report major attrition or loss of participants from the sample initially randomized? [Our initial definition of major attrition was a loss of 25% or more from the initially randomized sample but we later dropped this classification.]

3) Blinding of outcome assessors

Did the investigators report any steps that were taken to 'blind' those responsible for collecting the outcome data to treatment assignment?

4) Fidelity of program implementation

Did the investigators report that the program was so poorly implemented that the evaluation was not an accurate assessment of the effectiveness of the intervention? Any studies that reported deficiency on one or more of these criteria would be examined for impact on the meta-analysis through sensitivity analysis. In a sensitivity analysis, we drop the study from the meta-analysis to ascertain its effect on results.

4.3 DATA MANAGEMENT AND EXTRACTION

AP extracted data from each of the nine main study reports using a specially designed instrument. The data collection instrument was adapted from Petrosino's earlier study (Petrosino 1997); some items are listed in the 'Table of Included Studies.' In cases in which outcome information was missing from the original reports, we made attempts via email and regular mail correspondence to retrieve the data for the analysis from the original investigators. Investigators were helpful but unable to locate additional data. In two cases we retrieved unpublished Masters' theses from University Libraries to see if they contained this information (Cook 1990; Locke 1984). They did not.

4.4 DATA SYNTHESIS

We ran statistical analyses using Comprehensive Meta-Analysis (CMA) version 2. We expressed dichotomous outcome measures of crime as Odds Ratios (OR) and continuous measures of crime as weighted mean differences (WMD). We reported the 95% Confidence Intervals (CI) for both. Both fixed and random effects models were assumed in weighting treatment effects across the randomized trials. We planned to examine these effects at follow-up intervals of 0-6 months, 7-12 months, 13-18 months, 19-24 months and beyond 2 years. As we explain later, it was possible to conduct meta-analysis for "first effect" only.

These were repeated, and additional analyses run, using Meta Analyst software created by Dr. Joseph Lau of the New England Cochrane Center. One of us (our earlier co-author, the late John Buehler) also created meta-analytic formulae in Excel to double-check three of the analyses. Results were identical.

5 Results

Collectively, the nine studies were conducted in eight different states of the USA, with Michigan the site for two studies (Yarborough 1979; Michigan D.O.C. 1967). No set of researchers conducted more than one experiment. The studies span the years 1967-1992. The first five studies located were unpublished and were disseminated in government documents or dissertations; the remaining four were found in academic journal or book publications. The average age of the juvenile participants in each study ranged from 15 to 17. Only the New Jersey study included girls (Finckenauer 1982). Racial composition across the nine experiments was diverse, ranging from 36% to 84% white. Nearly 1,000 (946) juveniles or young adults participated in the nine experimental studies.

Most of the studies dealt with delinquent youths already in contact with the juvenile justice system. All of the experiments were simple two-group experiments except Vreeland's evaluation of the Texas Face-to-face program (Vreeland 1981). Only one study used quasi-random alternation techniques to assign participants (Cook 1992); the remaining studies claimed to use randomization although not all were explicit about how such assignment was conducted. Only the Texas study (Vreeland 1981) included data from self-report measures. In two studies (Cook 1992; Locke 1986), no post-intervention offending rates were reported. Some of the studies that did not include average or mean rates did not include standard deviations to make it possible to compute the weighted mean effect sizes. Also, the follow-up periods were diverse and included measurements at 3, 6, 9, 12, and 24 months.

5.1 NARRATIVE FINDINGS FROM THE REPORTS

Whether relying on the actual data reported or measures of statistical significance, the nine trials do not yield evidence for the effectiveness of 'Scared Straight' and other juvenile awareness programs on subsequent delinquency.

Michigan Department of Corrections (1967)

In an internal, unpublished government document, the Michigan Department of Corrections reported a trial testing a program that involved taking adjudicated juvenile boys on a tour of a state reformatory. Unfortunately, the report is

remarkably brief. Sixty juvenile delinquent boys were randomly assigned to attend two tours of a state reformatory or to a no-treatment control group. Tours included 15 juveniles at a time. No other part of the program is described. Recidivism was measured as a petition in juvenile court for either a new offense or a violation of existing probation order. The Michigan department of Corrections found that 43% of the experimental group re-offended, compared to only 17% of the control group. This large negative result curiously receives little attention in the original document.

The Greater Egypt Planning and Development Commission, Illinois, USA (1979)

This program at the Menard Correctional Facility started in 1978 and is described as a frank and realistic portrayal of adult prison life. The researchers randomly assigned 161 youths aged 13-18 to attend the program or a no-treatment control. The participants were a mix of delinquents or children at-risk of becoming delinquent. Participants were compared on their subsequent contact with police, on two personality inventories (Piers-Berne and Jesness) and surveys of parents, teachers, inamtes, and young people. The outcomes are also negative in direction but not statistically significant, with 17% of the experimental participants being recontacted by police in contrast to 12% of the controls (GERP&DC 1979). The authors concluded that 'Based on all available findings one would be ill advised to recommend continuation or expansion of the juvenile prison tours. All empirical findings indicate little positive outcome, indeed, they may actually indicate negative effects' (p. 19). Researchers report no effect for the program on two attitude tests (Jesness Inventory, Piers Harris Self-Concept Scale). In contrast, interview and mail surveys of participants and their parents and teachers indicated unanimous support for the program (p. 12). Researchers also note how positive and enthusiastic inmates were about their efforts.

Michigan JOLT Study, USA (Yarborough 1979)

In the Juvenile Offenders Learn Truth (JOLT) program, juvenile delinquents in contact with one of four Michigan county courts participated. Each juvenile spent five total hours in the facility. Half of this time was spent in a confrontational 'rap' session. This followed a tour of the facility, during which participants were escorted to a cell and exposed to interaction with inmates 9e.g., taunting). In the evaluation, 227 youngsters were randomly assigned to JOLT or to a no-treatment control. Participants were compared on a variety of crime outcomes collected from participating courts at three and six month follow-ups. This second Michigan study reported very little difference between the intervention and control group (Yarborough 1979). The average offense rate for program participants, however, was .69 compared to .47 for the control group. Yarborough (p. 14) concluded that, "...the inescapable conclusion was that youngsters who participated in the program, undergoing the JOLT experience, did no better than their control counterparts."

Virginia Insiders Program, USA (Orchowsky and Taylor 1981)

The Insiders Program was described as an inmate-run, confrontational intervention with verbal intimidation and graphic descriptions of adult prison life. Juveniles were locked in a cell 15 at a time and told about the daily routine by a guard. They then participated in a two hour confrontational rap session with inmates. Juvenile delinquents from three court service units in Virginia participated in the study. The investigators randomly assigned 80 juveniles ages 13-20 with two or more prior adjudications for delinquency to the Insiders program or a no treatment control group. Orchowsky and Taylor report on a variety of crime outcome measures at six, nine, and twelve month intervals. The only positive findings, though not statistically significant, were reported in Virginia (Orchowsky 1981). Although the difference at six months was not statistically significant (39% of controls had new court intakes versus 41% of experimental participants), they favor the experimental participants at nine and twelve months. The investigators noted, however, that the attrition rates in their experiment were dramatic. At nine months, 42% of the original sample dropped out, and at twelve months, 55% dropped out. The investigators conducted analyses that seemed to indicate that the constituted groups were still comparable on selected factors.

Texas Face-to-Face Program, USA (Vreeland 1981)

The Face-to-Face program included a 13-hour orientation session in which the juvenile lived as an inmate followed by counseling. Participants were 15-17 years of age and on probation from Dallas County Juvenile Court; most averaged 2-3 offenses before the study. A total of 160 boys were randomly assigned to four conditions: prison orientation and counseling, orientation only, counseling only, or a no-treatment control group. Vreeland examined official court records and self-reported delinquency at six months. This evaluation also reported little effect for the intervention (Vreeland 1981). Vreeland reported that the control participants outperformed the three treatment groups on official delinquency (28% delinquent versus 39% for the prison orientation plus counseling, 36% for the prison only, and 39% for the counseling only). This more robust measure contradicts data from the self-report measures used, which suggest that all three treatment groups did better than the no-treatment controls. None of these findings reached a level of statistical significance. Viewing all the data, Vreeland concluded that there was no evidence that Face-to-Face was an effective delinquency prevention program. He finds no effect for 'Face-to-Face' on several attitudinal measures, including the 'Attitudes Toward Obeying Law Scale.'

New Jersey "Scared Straight" Program, USA (Finckenauer 1982)

The New Jersey Lifers' Program began in 1975 and stressed confrontation with groups of juveniles ages 11-18 who participated in a rap session. Finckenauer randomly assigned 82 juveniles, some of whom were not delinquents, to the program or to a no treatment control group. He then followed them for six months in the community, using official court records to assess their behavior. Finckenauer reported that 41% of the children and young people who attended the 'Scared Straight' program in New Jersey committed new offenses, while only 11% of the controls did, a difference that was statistically significant (Finckenauer 1982). He also reported that the program participants committed more serious offenses and that the program had no impact on nine attitude measures with the exception of a measure called 'attitudes toward crime.' On this measure experimental participants did much worse than controls. We deal with Finckenauer's own concerns about randomization integrity in a sensitivity analysis, reported later.

California SQUIRES Program, USA (Lewis 1983)

This is supposedly the oldest such program in the USA< beginning in 1964. The SQUIRES program included male juvenile delinquents from two California counties between the ages of 14-18, most with multiple prior arrests. The intervention included confrontational rap sessions with rough language, guided tours of prison with personal interaction with prisoners, and a review of pictures depicting prison violence. The intervention took place one day per week over three weeks. The rap session was three hours long, and normally included 20 youngsters at a time. In the study, 108 participants were randomly assigned to treatment or to a no treatment control group. Lewis compared participants on seven crime outcomes at twelve months. Lewis reported that 81% of the program participants were arrested compared to 67% of the controls. He also found that the program did worse with seriously delinquent youths, leading him to conclude that such children and young people could not be "turned around by short-term programs such as SQUIRES...a pattern for higher risk youth suggested that the SQUIRES program may have been detrimental" (p. 222). The only deterrent effect for the program was the average length of time it took to be re-arrested: 4.1 months for experimental participants and 3.3 months for controls. Data were reported on 8 attitudinal measures, and Lewis reported that the program favored the experimental group on all of them, again underscoring the difficulty of achieving behavioral change even when positively affecting the attitudes of juvenile delinquents.

Kansas Juvenile Education Program, USA (Locke et al. 1986)

This intervention was designed to educate children about the law and the consequences of violating it. The program also tried to roughly match juveniles with inmates based on personality types. Fifty-two juvenile delinquents age 14-19 from three Kansas counties were randomly assigned while on probation to KEP or a no treatment control. The investigators examined official (from police and court sources) and self-report crime outcomes at six months. Locke and his colleagues reported little effect of the Juvenile Education Program. Both groups improved from pretest to posttest but the investigators concluded that there were no differences between experimental and control groups on any of the crime outcomes measured. Investigators also reported no effect for the program on the Jesness and Cerkovich attitude tests.

Mississippi Project Aware, USA (Cooke and Spirrison 1992)

Project Aware was a non-confrontational, educational program comprising one five hour session run by prisoners. The intervention was delivered to juveniles in groups numbering from 6-30. In the study, 176 juveniles (ages 12-16) under the jurisdiction of the county youth court were randomly assigned to the program or to a no treatment control. The experimental and control groups were compared on a variety of crime outcomes retrieved from court records at 12 and 24 months. Little difference was found between experimental and control participants in the study. For example, the mean offending rate for controls at 12 months was 1.25 for control cases versus 1.32 for Project Aware participants. Both groups improved from 12 to 24 months, but the control mean offending rate was still lower than the experimental group. The investigators concluded that, “attending the treatment program had no significant effect on the frequency or severity of subsequent offenses” (p. 97). The investigators also reported on two educational measures: school attendance and drop-out. Curiously, they report an effect for the program on school dropout data, but not that “...it is not clear how the program succeeded in reducing dropout rates...” (p. 97).

5.2 SHOULD WE BELIEVE THESE STUDIES? ASSESSMENT OF METHODOLOGICAL QUALITY

We examined each of the included nine included studies to determine the quality of methods on the four criteria aforementioned. We found three studies with reported methodological problems that should be taken into account, with two having implications for our statistical analysis:

1) Randomization Integrity

a. One study reported problems with randomization, and they were dramatic (Finckenauer 1982). Only eight of the eleven participating agencies that referred troubled or delinquent boys to the program correctly assigned their cases. He did conduct additional analyses in an attempt to compensate for violation of randomization; the program still had harmful effects. We conducted sensitivity analyses , i.e. dropped this study from the meta-analysis to determine its impact on the results.
b. Note that the 'Table of Included Studies' also includes our rating of allocation concealment. Seven of the studies are rated as 'unclear' as there is no information on how randomization was performed ('B' rating). In one case, the concealment was rated as 'A' or adequate (Michigan D.O.C. 1967). In another, because alternation was used, it received a 'C' because it was rated as 'inadequate' (Cook and Spirrison 1992) in accordance with the Cochrane Reviewers' Handbook. This latter study was not included in the meta-analysis because it did not include data on post-intervention offending.

2) Attrition from Initial Sample

a. The Virginia Insiders study reported a major loss of participants from the initial randomization sample (Orchowsky and Taylor 1981). They reported this, however, at the second and third follow-up intervals (not the first, at six months). Because there was a paucity of data beyond the first follow-up interval across studies, we only conducted a pooled analysis using the "first effect". Therefore, a sensitivity analysis of the impact of this later attrition was not performed.
b. The Michigan JOLT study did report a large number of no-shows but they were deleted from the analysis. The problem is that we do not know how many participants were initially assigned and we have no assurances from investigators that the remaining sample was similar to the initial sample. We also dropped the JOLT study in a sensitivity analysis to determine its influence on the pooled analysis.

3) Blinding of Outcome Assessors.

Blinding of outcome assessors was reported in only one study (Michigan D.O.C. 1967), but given that most outcome data were collected from state or federal criminal history data bases (and not by program designers), it would seem that this would not be a likely threat to the results.

4) Fidelity of Program Implementation
As these programs were relatively simple, none of the evaluators reported problems with implementation of the program, i.e., the youths received the intervention as intended.

5.3 META-ANALYSIS

For each study, we extracted all of the relevant crime outcome data. Our protocol included an organization of analyses by examining official reports (from government administrative records) distinct from self-reported criminality (obtained from investigator-administered survey questionnaires). Given that we expected a diverse number of measures of crime to be reported, the protocol called for us to organize it into four indexes that would be most relevant to policy and practice. These included prevalence rates (i.e. what percentage of each group re-offended or did not), average incidence rates (i.e. what was the average number of offenses or other incidents per individual in each group?), offense severity rates (i.e. what was the average severity of offenses per individual in each group?), and latency (i.e. how long was the average return to crime or failure delayed per individual in each group?). Unfortunately, as Table 2 shows, the full array of data showed that many of these indicators were missing.

Given the limitation of the data, we conduct one meta-analysis. We report the crime outcomes for official measures at the first-effect or first follow-up interval (and usually the only) period reported. Each analysis focused on proportion data (i.e. the proportion of each group re-offending), as the outcomes reporting means or averages is sparse and often does not include the standard deviations. Thus, because the data rely on dichotomous outcomes, both analyses report Odds Ratios (OR) for each study and their 95% Confidence Intervals (CI). Because there is some disagreement in the literature about this, we assume both random and fixed effects models for treatment effects across the studies.

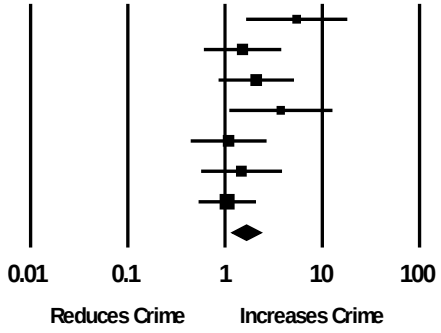
Figures 1 and 2. Immediate post-treatment effects for re-offending rates, official measures

The analysis of the data in comparison table 1 from the seven studies reporting reoffending rates shows that intervention increases the crime or delinquency outcomes at the first follow-up period. Assuming either a fixed effect or random effects model does not change its overall negative impact. Using a fixed effect model, the OR is 1.68 (CI 1.20-2.36); the mean OR assuming a random effects model is not much different at 1.72 (CI 1.13-2.62). These are both statistically significant. The intervention increases the odds of offending by between 1.6 and 1.7 to 1.

Fixed Effects Results

Effects of Scared Straight and other similar programs: Meta-analysis of first effect crime outcomes (Fixed Effects Analysis)

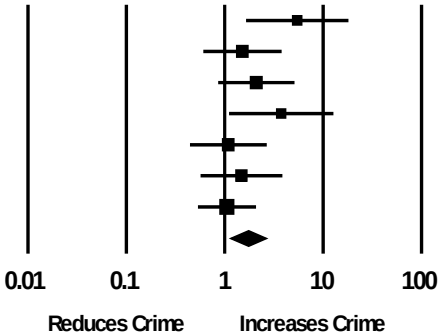
Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Finckenauer (1982)	5.454	1.650	18.022	2.781	0.005
GERPDC (1979)	1.513	0.607	3.772	0.888	0.374
Lewis (1983)	2.092	0.860	5.090	1.627	0.104
Michigan DOC (1967)	3.750	1.110	12.669	2.128	0.033
Orchowsky (1981)	1.087	0.444	2.660	0.183	0.855
Vreeland (1981)	1.476	0.569	3.832	0.801	0.423
Yarborough (1979)	1.054	0.537	2.070	0.153	0.879
	1.642	1.162	2.320	2.814	0.005



Random Effects Model Results

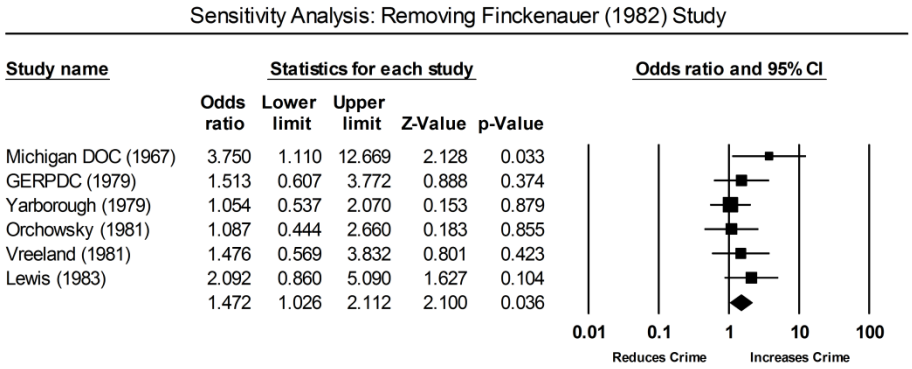
Effects of Scared Straight and other similar programs: Meta-analysis of first effect crime outcomes (Random Effects Analysis)

Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Finckenauer (1982)	5.454	1.650	18.022	2.781	0.005
GERPDC (1979)	1.513	0.607	3.772	0.888	0.374
Lewis (1983)	2.092	0.860	5.090	1.627	0.104
Michigan DOC (1967)	3.750	1.110	12.669	2.128	0.033
Orchowsky (1981)	1.087	0.444	2.660	0.183	0.855
Vreeland (1981)	1.476	0.569	3.832	0.801	0.423
Yarborough (1979)	1.054	0.537	2.070	0.153	0.879
	1.724	1.134	2.619	2.550	0.011



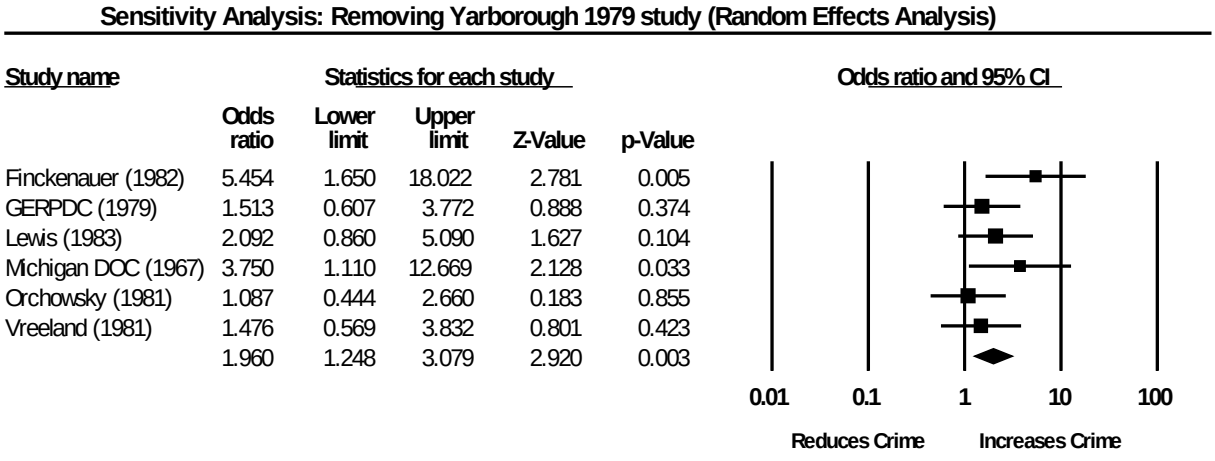
5.4 SENSITIVITY ANALYSIS, EXCLUDING FINCKENAUER STUDY

We excluded the Finckenauer study, because of its randomization problems, from the analyses reported in Figure 1 and 2. Given the little difference in OR whetherassuming a fixed effect or random effects model, we conducted a meta-analysis assuming a random effects model. As the Finckenauer study reported the largest negative effects for the program, it is not surprising that the OR decreases. It is, as Figure 3 indicates, still negative in direction at 1.47 and statistically significant (CI 1.03-2.11).



5.5 SENSITIVITY ANALYSIS, EXCLUDING YARBOROUGH STUDY

We excluded the Yarborough study because of its deletion of no-shows, indicating a potential for large attrition from the initial study sample. We again assumed a random effects model. The deletion of this study does not alter the overall negative impact of these programs, as the OR is 1.96 (Figure 4). This is statistically significant (CI 1.25, 3.08).

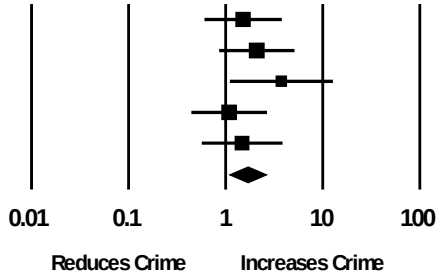


5.6 SENSITIVITY ANALYSIS, EXCLUDING FINCKENAUER AND YARBOROUGH STUDIES

We excluded both the Finckenauer and Yarborough studies to see how this affected the overall meta-analysis. As the Figure shows, even with two studies removed for sensitivity analysis, the overall effect of the intervention in the five remaining studies shows a "criminogenic" effect, i.e., favors the control group not receiving Scared Straight (Figure 5).

Sensitivity Analysis: Removing Finckenauer 1982 and Yarborough 1979 studies (Random Effects Analysis)

Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
GERPDC (1979)	1.513	0.607	3.772	0.888	0.374
Lewis (1983)	2.092	0.860	5.090	1.627	0.104
Michigan DOC (1967)	3.750	1.110	12.669	2.128	0.033
Orchowsky (1981)	1.087	0.444	2.660	0.183	0.855
Vreeland (1981)	1.476	0.569	3.832	0.801	0.423
	1.682	1.098	2.578	2.388	0.017



6 Converging evidence

We note that the other two trials that did not report prevalence data for the metaanalysis also reported no effect for the intervention (Cook and Spirrison 1992; Locke *et al.* 1986). Indeed the mean data from the Mississippi study is also negative in direction, and the Kansas investigators reported an increase in crime for juvenile participants when examining the self-report data (though they did not report the actual figures).

These findings mirror prior systematic reviews that included Scared Straight as a "subset" or partition of a broader meta-analysis. In 2000, the University of York's National Health Service Centre for Reviews and Dissemination prepared the Wider Public Health Project Report. This was a project that vigorously searched, retrieved and annotated systematic or potentially systematic reviews relevant to the government's Wider Public Health agenda. They included reviews relevant to criminal behavior. We examined these for evidence (converging or dissenting) relevant to our review. We found two.

A meta-analysis of juvenile prevention and treatment programs by Lipsey (Lipsey 1992) indicated that the effect size for 11 'shock incarceration and "Scared Straight" programs was -.14. In short, experimental groups had a 7% higher recidivism rate than controls if a 50% baseline of recidivism is assumed.

Gendreau and his colleagues (1996) also reported a meta-analysis of "get tough" or "get smart" sanctions. These included interventions designed to deter future crime like "Scared Straight" as well as interventions designed to punish or control offenders at less cost such as intensive supervision while on probation or parole. The reviewers computed correlations of program participation and recidivism outcomes. Examining 15 experimental or quasi-experimental evaluations of Scared Straight type programs, they found an average correlation of .07 (the largest correlation in their analysis) with criminal recidivism. Simply put, participating in the program was *associated with an increase in crime.*

7 Discussion

These randomized trials, conducted over a 25-year period in eight different jurisdictions, provide evidence that 'Scared Straight' and other 'juvenile awareness' programs are not effective as a stand-alone crime prevention strategy. More importantly, they provide empirical evidence under experimental conditions - that these programs likely increase the odds that children exposed to them will commit offenses in future. Despite the variability in the type of intervention used, ranging from harsh, confrontational interactions to tours of the facility converge on the same result: an increase in criminality in the experimental group when compared to a no-treatment control. Doing nothing would have been better than exposing juveniles to the program.

Given that the seven trials used in the meta-analysis were conducted in six jurisdictions using variations of the intervention underscore the external validity of these findings. Given the strong suggestion here that these programs have a harmful effect, they raise a dilemma for policy makers. Criminological interventions, when they cause harm, are not just toxic to the participants. They result in increased misery to ordinary citizens that come from the 'extra' criminal victimization they create when compared to just doing nothing at all. Policymakers should take steps to build the kind of research infrastructure within their jurisdiction that could rigorously evaluate criminological interventions to ensure they are not harmful to the very citizens they aim to help.

7.1 THE 'WHY' QUESTION

One question that continues to arise about these findings is 'why' 'Scared Straight' and similar programs seem to lead to more crime rather than less in its participants. What is the critical mechanism? Understanding why something works or fails is of great interest to evaluators, program designers, and criminological theorists. Evaluators for the Oklahoma 'Speak Outs' program wondered about the criminogenic effect of these programs when they asked:

> If one argued that a two hour visit cannot perform the miracle of deterring socially unacceptable behavior (see Cook & Spirrison, 1992), it can also be argued that it was extremely simplistic to assert that a two hour visit can

perform the miracle of *causing* socially unacceptable behavior (Holley and Brewster 1996).

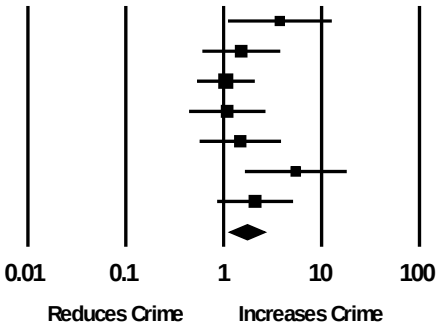
Although there were many good post-hoc theories about why these programs had negative effects, the evaluations were not structured to provide the kind of mediating variables or 'causal models' necessary for an empirical response to this question in a systematic review (Petrosino 2000).

7.2 THE AGE OF THE EVALUATION EVIDENCE

Arnold Shapiro (cited in Dehnart, 2011) criticized the studies reviewed here because none of them were reported after 1992. “Scared Straight” has evolved and is now a very different program, and two decades have passed since that last study was published. The Figure below presents the effect sizes for the seven studies the provided data for meta-analysis, by year of publication. Despite 16 years between the year the first eligible study was reported (1967) and the last (1983), there does not appear to be any pattern of “improvement.” Effect sizes remain fairly large and negative in direction for the two most recently published studies (Finckenauer, 1982 and Lewis, 1983).

Effects of Scared Straight and similar programs: First crime effects by year of publication

Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Michigan DOC (1967)	3.750	1.110	12.669	2.128	0.033
GERPDC (1979)	1.513	0.607	3.772	0.888	0.374
Yarborough (1979)	1.054	0.537	2.070	0.153	0.879
Orchowsky (1981)	1.087	0.444	2.660	0.183	0.855
Vreeland (1981)	1.476	0.569	3.832	0.801	0.423
Finckenauer (1982)	5.454	1.650	18.022	2.781	0.005
Lewis (1983)	2.092	0.860	5.090	1.627	0.104
	1.724	1.134	2.619	2.550	0.011



However, even if researchers would like to conduct an evaluation of Scared Straight or a similar program, the funding for the study would likely have to come from a source other than agencies such as the National Institute of Justice (NIJ), the Office of Juvenile Justice and Delinquency Prevention (OJJDP) or other government funding agency. This is because, given scarce funding, it would be hard for the agency to justify spending precious evaluation dollars on a program largely thought to be ineffective at best, and harmful at worst, by a great many in the research and policy community.

8 Conclusions

Jerry Lee, the President of Philadelphia's most successful radio station (B 101 FM) and a noted social philanthropist, once stated that he makes more use of research in his business than his competitors. He credited that with his great success in the radio industry. He noted an important point: "research is not an absolute...it gives you probabilities of what might happen." Based on the Scared Straight and juvenile awareness experiments already conducted, we cannot say with certainty that every such program will fail or - worse yet - lead to harmful effects on juvenile participants. But, the prior evidence indicates that there is a greater probability than not that it will be harmful. Would you permit a doctor to use a medical treatment on your child with a similar track record of results?

8.1 IMPLICATIONS FOR PRACTICE

We note the following irony: despite the gloomy findings reported here and elsewhere, 'Scared Straight' and its derivatives continue in use, although a randomized trial has not been reported since 1992. As Finckenauer and Gavin (Finckenauer 1999) noted, when the negative results from the California SQUIRES study came out, the response was to end the evaluation - not the programmed. Today the SQUIRES program continues, evaluated by the testimonials of prisoners and participants alike. Despite evidence, beliefs in the program's efficacy continue. Middleton and his colleagues report on the extension of this strategy in one UK town to scare ordinary schoolchildren by using former correctional officers to set up a prison-type atmosphere in the public school system (Middleton 2001). In 1982, Finckenauer called this the 'Panacea Phenomenon,' describing how policy-makers, practitioners, media reporters and others sometimes latch onto quick, short-term and inexpensive cures to solve difficult social problems (Finckenauer 1982). Others claim that the program by itself is of little value but could be instrumental if embedded in an overall multi-component package of interventions delivered to youths. More recently, the success of the A&E program, Beyond Scared Straight, has increased enthusiasm for this program as a crime prevention strategy.

We believe that our updated review places the onus on every jurisdiction to show how their current or proposed program is different than the ones studied here. Given that, they should then put in place rigorous evaluation to ensure that no harm is caused by the intervention.

Some literature indicates the program can have a positive effect on the inmate providers and that argument is sometimes used to legitimize use of the programmed. These arguments are undoubtedly used under the assumption that the program does no harm. In light of these findings, assertions that 'Scared Straight' and similar programs ought to be used because it achieves other things raises ethical questions about potentially harming children (and others in the community who may be victimized) in order to accomplish other important, but latent, goals.

Personal repentance and redemption is a noble goal and correctional facilities are not the only institutions that encourage this. Perhaps administrators can encourage motivated offenders in penal institutions to engage in benevolent activities that do not pose harm to juveniles (or the communities they offend in). There are many charitable activities that inmates do take part in (i.e. making toys for hospitalized children), and these should be encouraged, not only for the 'good' they bring, but also for the part that contributing to such a task may have in offender rehabilitation. Another interesting opportunity for inmates is to serve as counselors and tutors to each other. For example, Franklin (2000) described a program at a Washington state correctional facility that used more educated inmates as literacy tutors for incarcerated offenders who could not read. The ability to contribute in such a way is cited as one of the positive factors of the program, along with its low cost.

The authors have received communications from different prison facilities that are using a juvenile awareness program. One argument used to sustain such programs is that the research reported here does not apply to their particular program. Our recommendation is that correctional research units, either at the facility or at a regional or national government level, collaborate with program staff to conduct a rigorous evaluation. If such units do not exist or cannot conduct their own study, we suggest they collaborate with a local university, college, or research firm that could undertake this work to ensure that the program is working as planned and not unintentionally causing more harm than good.

Correctional administrators sometimes ask whether our results are relevant to their particular program. For example, inmates running the program may go outside the prison to speak at schools about their life experiences. Our review only looked at "kids visit prisons" programs, and as far as we know, no review has examined juvenile awareness interventions that involve offenders leaving prison grounds to speak to children at school. To date, we have not found a single controlled study testing it.

Since versions of this review began circulating on the Internet, the first author receives periodic correspondence from a concerned citizen about how to get a juvenile in trouble with the law into a Scared Straight program. They are obviously not reading the full report but are just trying to find contact information about the

program. We cannot in good conscience recommend this program. We have no data on the type of kid or constellation of personality characteristics that could possibly be helped by going through Scared Straight or a similar program. Our response to these well-meaning citizens is to refer them to national, regional or local centers that specialize in youth prevention services.

8.2 IMPLICATIONS FOR RESEARCH

In concert with Campbell and Cochrane guidelines, we plan to update this review again within 36 months to incorporate any new studies or respond to cogent criticisms. Given that we found only nine studies (and only seven used in the meta-analysis), we were cautious not to propose the use of moderating variables in subsequent analyses. We initially believed that one program factor that may have salience, however, is the degree of harshness in the inmate presentations. It may be that the more brutal and vulgar the presentation, the more that it causes a type of 'backfire' effect, producing in the juveniles the very behavior it seeks to deter. When looking at this a bit more closely, we discovered that one trial involving a tour of a reformatory *with no presentation* reported one of the largest negative effects (Michigan Department of Correction 1967). Until more experiments of juvenile awareness programs are reported - with adequate description of this variable - we will not pursue this particular point of inquiry.

This review has led us to consider two others, contingent on future funding. "Shock value" type interventions are tried across many fields. For example, high school students are sometimes shown horrific footage of car accidents in order to deter them from drinking and driving. In industrial arts classes, students are shown films of what occurs when safety glasses are not worn; this is often graphic and is designed to increase compliance with such regulations. There are many other examples across fields. But is there any evidence that any of these "shock value" interventions work? Or do they produce disappointing, or even toxic results, as we have reported here?

It may be true that Scared Straight and like programs do not work because they only convey a threat that juveniles do not think will be carried out. What about the evidence for deterrence when it is not an inmate providing a third-party threat but the juvenile system officially processes the youth? There have been a wide range of randomized trials that test for the effects of official processing in juvenile courts with some other intervention (such as diverting the kid from such processing). Is there evidence that the delivery of a threat - official system processing - deters future criminal behavior? In 2010, Petrosino, et al. examined 29 randomized trials that evaluated the effects of some diversionary alternative (services or outright release) and compared it to official processing or progression deeper into the juvenile justice system. That review, published by the Campbell Collaboration, also indicated that formal system processing or progression had no crime deterrent effect, and in some

instances increased crime in contrast to diversionary alternatives. In addition, formal processing is a more expensive approach than most diversionary programs, and coupled with the crime reduction effect, could result in some savings for jurisdictions (WestEd, 2012). This review indicates that the delivery of a threat (official processing) did not deter future juvenile offending, compared to doing nothing, and actually reported worse outcomes than if the youth was assigned to a diversionary program with services.

9 Other topics

9.1 WHAT'S NEW IN THE 2012 UPDATE

In this update of a Campbell Inaugural Review, the authors:

- Corrected and edited the Inaugural Review Draft where necessary
- Extended all searches through January 2012
- Conducted new searches of electronic bibliographic databases recently made accessible at available libraries or online
- Incorporated forward-search methodologies to search for studies citing the original included studies and systematic review and related publications.
- Included more discussion in the "Implications for Research' section

9.2 ACKNOWLEDGEMENTS

This work was supported in part by grant from the Smith-Richardson Foundation to the Graduate School of Education at the University of Pennsylvania (Robert Boruch, Principal Investigator). It also received partial support from a Mellon Foundation grant to the Center for Evaluation, Initiatives for Children Program at the American Academy of Arts & Sciences (Frederick Mosteller, Principal Investigator) and a grant from the U.K. Home Office to Cambridge University Institute of Criminology (David Farrington, Principal Investigator). The latter two sources supported Anthony Petrosino's time during work and use of his office and computer at the American Academy of Arts & Sciences.

This paper benefited greatly from comments and criticisms by Professor Robert Boruch, Sir Iain Chalmers, Dr. Phoebe Cottingham, Professor Lyn Feder, and Professor Joan McCord.

Professor Boruch served as the Principal Advisor on the Campbell-version of this review. We also appreciate the criticisms by three external peer reviewers during that Campbell editorial process.

The Criminal Justice Collection at Rutgers University's Center for Law and Justice and the Gutman Library at the Harvard Graduate School of Education facilitated

interlibrary loan requests. We thank Phyllis Schultze and Carla Lillvik for their expertise, patience and assistance.

We appreciate the great work of the Cochrane Developmental, Psychosocial, and Learning Disorders Group. This includes the guidance and editorial comments of Dr. Jane Dennis, Review Group Coordinator and Professor Geraldine Macdonald, Coordinating Editor. It also includes editorial comments from Dr. Julian Higgins, Dr. Stuart Logan and other editorial members of the Developmental, Psychosocial and Learning Disorders Group. Additional searches, among other helpful tasks, were provided done by Jo Abbott and Celia Almeida.

The 2003 update was supported in part by a Smith-Richardson Foundation grant to the Jerry Lee Center of Criminology at the University of Pennsylvania (Lawrence Sherman, Principal Investigator). The 2003 update was greatly improved by the editorial criticism of Professor Hiroshi Tsutomi.

The 2012 update was supported by the Campbell Collaboration, Oslo, Norway. We appreciate the assistance of Eammon Noonan, Chief Executive Officer for C2, in facilitating this funding.

9.3 POTENTIAL CONFLICT OF INTEREST

Two of the authors published an article in the journal Crime & Delinquency that indicated a harmful effect for these programs, based on preliminary analyses (Petrosino 2000b). We believe the potential for bias toward 'replicating' the earlier Crime & Delinquency findings here is reduced by the explicit and transparent review methods used.

9.4 SOURCES OF SUPPORT

External sources of support

- Smith-Richardson Foundation grant (to University of Pennsylvania Graduate School of Education) USA, Robert Boruch, Principal Investigator
- Mellon Foundation grant (to the American Academy of Arts & Sciences, Center for Evaluation), USA, Frederick Mosteller (Principal Investigator)
- Home Office, Research & Statistics Directorate (to Cambridge University Institute of Criminology), UK, David Farrington, Principal Investigator
- Smith-Richardson Foundation grant (to University of Pennsylvania Jerry Lee Center of Criminology) USA, Lawrence Sherman, Principal Investigator
- Campbell Collaboration contract to WestEd, Anthony Petrosino, Principal Investigator

Internal sources of support

- American Academy of Arts and Sciences USA (1999-2002)
- Harvard Graduate School of Education USA (1999-2002)
- WestEd, 2011-2012

10 APPENDIX

10.1 CHARACTERISTICS OF INCLUDED STUDIES

Study: Cook 1992

Methods	Quasi-random assignment – researchers numbered court files and assigned all odd numbered ones to intervention group
Participants	176 juvenile delinquents ages 12-16 under jurisdiction of one Mississippi county youth court, 36% white, 100% male
Interventions	Educational, prisoner-run 5-hour session, designed to be non-confrontational
Outcomes	12- and 24-month follow-ups of official court record data, average offending rates and severity of offense. School attendance and school drop-out
Notes	No standard deviations reported with any mean data, no group percentages, attempts to retrieve these data from author and other primary documents failed.
Allocation concealment	C (Inadequate)

Study: Finckenauer 1982

Methods	Random assignment
Participants	81 delinquent or children ages 11-18 at risk for delinquency, 50% had prior record of offending, 40% were white, 80% male
Interventions	One visit, a confrontational rap session lasting approximately 3 hours with inmates serving life sentence
Outcomes	Six-month follow-up of official complaints, arrests or adjudications. Severity of offense. Attitudes: toward criminals, toward crime, toward law, toward justice, toward police, toward prison, toward punishment, self image
Notes	
Allocation concealment	B (Unknown)

Study: GERP&DC 1979

Methods	Random assignment
Participants	161 delinquent or children at risk for delinquency, 100% male, 84% white, ages 13-18
Interventions	Confrontational rap session with inmates
Outcomes	5-15 months follow-up of contacts with police Piers Harris Children's Self-Concept Scale Jesness Inventory
Notes	
Allocation concealment	B (Unknown)

Study: Lewis 1983

Methods	Random assignment
Participants	108 juvenile delinquents from two California counties, most with extensive prior record, ages 14-18, 100% male, mostly non-white
Interventions	Three total visits (one per week) including confrontational rap sessions, guided tours of prison and interaction with prisoners, review of pictures of prison violence
Outcomes	Twelve-month follow-up of percentage arrested, average number of arrests, percentage charged, average number of charges by type of offense, offense severity, time to first arrest Attitudes: toward police, toward school, toward crime, toward prison, toward work camp Semantic Differential Test
Notes	Over 100 moderating analyses performed on the data
Allocation concealment	B (Unknown)

Study: Locke 1986

Methods	Random assignment
Participants	53 juvenile delinquents ages 14-19 on probation from three Kansas counties, 65% white, 100% male
Interventions	Non-confrontational, educational interaction, tried to match juvenile with inmate
Outcomes	Minimum six-month follow-up of self-reported crime and juvenile court and police records of official offending
Notes	No standard deviations reported with any mean data, no group percentages, attempts to retrieve these data from author and other primary documents failed

Allocation concealment	B (Unknown)

Study: Michigan D.O.C. 1967

Methods	Assignment using random numbers table, data collectors were blind to assignment
Participants	60 juvenile delinquents from one Michigan county
Interventions	Two tours of a Michigan reformatory
Outcomes	Six-month follow-up of official petition for delinquency or probation violation
Notes	Brief internal report that does not fully describe nature of intervention
Allocation concealment	A (Adequate)

Study: Orchowsky 1981

Methods	Random assignment
Participants	80 juvenile delinquents (with minimum two offenses), ages 13-20, 100% male
Interventions	Confrontational, inmate-run program, locked in cell, introduction by guard, two-hour session with inmates
Outcomes	Six, nine and twelve-month follow-ups of official measures of offending including new court intakes, average number of court intakes, severity of offense
Notes	
Allocation concealment	B (Unknown)

Study: Vreeland 1981

Methods	Randomly assigned to four groups
Participants	160 juvenile delinquents given probation by Dallas County Court, 100% male, 40% white, ages 15-17, averaged 2-3 prior offenses
Interventions	One-day orientation lasting 13 hours, including haircut and physical labor
Outcomes	Six-month follow-up of official (using court records) and self-reported data to establish offending Attitude toward Law Friend Survey Deterrence questionnaire Self-image Jesness Checklist

Notes	To remain consistent with other interventions in this review, we took the orientation group comparison with the no-treatment control group. The orientation plus counseling group, however, was almost identical to the orientation only group in final results.
Allocation concealment	B (Unknown)

Study: Yarborough 1979

Methods	Researchers randomly assigned participants according to random numbers table
Participants	227 juvenile delinquents under jurisdiction of courts in four Michigan counties
Interventions	Tour of facility, separated and take to cell for interaction with inmates, confrontational session with inmates, one visit five-hours long
Outcomes	Three and six-month follow-ups of official juvenile crime as measured by subsequent court petitions, new offenses, average offense rate, weeks to new offense, type of offense charged, average days in detention
Notes	Extensive moderating analyses done
Allocation concealment	B (Unknown)

10.2 CHARACTERISTICS OF EXCLUDED STUDIES

Study	Reason for Exclusion
Aims Multimedia 1999	Used post-test data without a control group
Ashcraft 1970	Used a pre-post test without a control group
Bazemore et al. 2004	Used a matched comparison group without randomization
Berry 1985	Used a matched comparison group without randomization
Blunkett 2008	No randomization, pre-post measures, or appropriate outcomes
Brodsky 1970	Used a pre-post design without a control group
Buckner 1983a	Used a matched comparison group without randomization
Chesney-Lind 1981	Used a non-equivalent comparison group design without randomization
Dean 1982	Used randomization but did not include any measures of criminal behavior
Feinstein 2005	Did not include appropriate outcome measures
Gilman 1977	Used archival data from three sources for post-test only follow-ups without a control group
Langer 1980	Used a matched comparison group without randomization
Lloyd 1995	Case studies of three-day visit programs in the UK. No control group is included.

Mitchell 1986	Used pre-post data without a control group
NSW BoS 1980	Used post-test only data without a control group
Nelson 1991	Used post-test only data without a control group
Nygard 1980	Report on process and implementation data only. No follow-up or control group reported.
O'Malley 1993	Process and implementation data on Australia's Victoria prison programmed. No control group.
Portnoy 1986	This study randomly assigned juveniles from high school to watch the Scared Straight video or a more neutral film. It did not involve the actual program. No follow-up data on criminal offenses were reported.
Rasmussen 1996	Used multivariate regression on county crime rates to estimate prevention impact of program, no control group or randomization employed.
Shapiro 1978	Used post-test only data without a control group
Storvoll 1998	Scared Straight programmed. No follow-up or control group included.
Trotti 1980	Used post-test data of reactions of participants, without a control group.
Wilson and Groombridge 2010	Inappropriate follow-up data, no randomization, no pre- post- measures
Windell and Allen 2005	Descriptive report without adequate evaluative data or methods.

10.3 FULL ARRAY OF CRIME OUTCOME DATA REPORTED IN ORIGINAL STUDIES

Study Reference	At 3 Months	At 6 Months	At 9 Months	At 12 Months	Beyond 12 Months
MI DOC 1967		Percentage with new offense or new violation of probation			
GERP&DC 1979		Percentage subsequently contacted by police			
Yarborough 1979	Percentage with new offenses, percentage with new petitions,	Percentage with new offenses, type of offenses, percentage with new petitions, average offense			

	average offense rate and standard deviations, average weeks to new offense and standard deviations, number of days in detention and standard deviations	rate and standard deviations, average weeks to new offense and standard deviations, average days in detention and standard deviations.		
Taylor and Orchowsky 1981		Percentage with new intakes (no standard deviations but test statistic), average severity score (no standard deviations but test statistic)	Percentage with new intakes, average intakes (with no standard deviations but test statistic) and average severity score (no standard deviations but test statistic)	Percentage with new intakes, average intakes (no standard deviations but test statistic), average severity score (no standard deviations but test statistic)
Vreeland 1981		Percentage with new offenses (official measures), percentage with new offenses (self-reported data)		
Finckenauer 1982		Percentage new complaints, contacts or court appearances, average severity score (no standard deviation, but		

	test statistic)			
Lewis 1983			Percentage arrested, percentage charged, average arrests (no standard deviation), average time to first arrest (no standard deviation)	
Locke et al 1986	Only test statistic reported			
Cook and Spirrison 1992			Average offenses (no standard deviations), average severity score (no standard deviations)	Average offenses (no standard deviations), average severity score (no standard deviations)

10.4 SUMMARY OF CRITERIA OF METHODOLOGICAL ADEQUACY FOR INCLUDED STUDIES

Study (total N)	Randomization	Attrition	Outcome bias	Implementation	Methodology (sum.)
Michigan Department of Corrections 1967 (60)	Random numbers tables used to allocate, no test for equivalence reported	Only two participants lost	Juvenile home records used in follow-up; data investigators were blind to group allocation	No problems reported	The one troubling aspect is the failure to conduct a test for equivalence, particularly with only 60 total persons assigned. Nonetheless,

					there is nothing else to question the observed findings.
GEP&DC 1979 (161)	Random assignment, no further information	None reported	Subsequent police reports, no problems reported	No problems reported	Nothing in the report seems to indicate that the findings should be questioned.
Yarborough 1979 (227)	Research unit handled random assignment, good protocol in place, test for equivalence satisfactory	The study has many no-shows whom are dropped from analysis	Researchers collected data from court files but unknown if blind to conditions. Government agency still reported a negative result for its own program.	No problems reported	The no-shows and lack of attention in the report trouble us. Again, nothing in the report suggests anything other than a null or slightly negative effect for JOLT.
Orchowsky & Taylor 1981 (80)	Random assignment used, test for equivalence satisfactory	The study drops 41% at 9 months and 55% at 12 months, PIs report tests for equivalence at 9 and 12 months are satisfactory	Juvenile court intake data is the primary source but no description on how collected	No problems reported	The massive attrition at 9 and 12 months also corresponds with positive results reported for the program after negative impact at 6 months. The tests for equivalence, however, do seem to indicate the groups were still comparable.
Vreeland 1981 (79)	Random assignment used, test for equivalence	No attrition for the two groups (of the four in the	Used court data and self-report, no other	No problems reported	There is nothing in the report to lead us to question the

	satisfactory	experiment) reported	information provided		findings
Finckenauer 1982 (81)	Randomization broke down, 6 of the 11 referral agencies violated assignment protocol, test for equivalence showed 50% of E had a prior record, only 40% of C	None reported	Researchers collected the data from court files, not from program staff	No problems reported	Randomization breakdown is cause for concern. PI does report additional analyses for agencies that followed protocol: 31% of E recidivated compared to 17% of C.
Lewis 1983 (108)	Test for equivalence is satisfactory but age slightly favors experimental group	Only one participant lost during follow-up	Although the CA Youth Authority ran the program and the study and collected the data, they report negative effects for the program.	No problems reported	There is nothing in the study report to support any lack of confidence in the observed findings
Locke et al. 1986 (53)	Randomization used, test for equivalence satisfactory (though not stated if done after attrition)	40% of an already small sample lost in follow-up, leaving 32 in the study	Two researchers collected court data	No problems reported	The study appears to have severe attrition, limiting our confidence. The PIs report no effect for treatment but do not provide enough data for computation of odds rations or weighted means differences.
Cook & Spirrison	Quasi-random allocation using	24% lost in follow-up, no	Data retrieved from court	No problems reported	The attrition gives us cause

1992 (176)	odd-even assignment of case files (with initial numbering quasi-random – all cases numbered consecutively). Some breakdown is reported but actual percentage is unknown; cases were dropped. No test for equivalence reported before or after attrition.	analysis to ensure groups still equivalent	system. No other information provided.	for concern, particularly with no tests for equivalence. But the major problem with the study is the failure of the investigators to report the necessary standard deviations for the meta-analysis. All available data seem to indicate a slightly negative impact for the program on crime measures.

10.5 REFERENCES

10.5.1 References to studies included in this review

Cook DD. *Effects of a non-confrontational prisoner-run juvenile delinquency deterrence program*. Unpublished Masters thesis, Department of Psychology, Mississippi State University. 1990.

Cook DD, Spirrison CL. Effects of a prisoner-operated delinquency deterrence program: Mississippi's Project Aware. *Journal of Offender Rehabilitation* 1992;17:89-99.

Finckenauer JO. *Scared Straight and the Panacea Phenomenon*. Englewood Cliffs, NJ: Prentice-Hall, 1982.

Greater Egypt Regional Planning & Development Commission. *Menard Correctional Center: Juvenile tours impact study*. Carbondale, IL: Greater Egypt Regional Planning and Development Commission, 1979.

Lewis RV. Scared straight--California style: evaluation of the San Quentin SQUIRES program. *Criminal Justice & Behavior* 1983;10(2):209-226.

Locke TP. *An Analysis of the Kansas State Penitentiary Juvenile Education Program*. Unpublished Masters thesis, Department of Psychology, University of Kansas 1982.

Locke TP, Johnson GM, Kirigin-Ram K, Atwater JD, Gerrard M. An evaluation of a juvenile education program in a state penitentiary. *Evaluation Review* 1986;10:281-298.

Michigan Department of Corrections. *A six month follow-up of juvenile delinquents visiting the Ionia Reformatory*. Research Report No. 4. Lansing: Michigan Department of Corrections. 1967.

Orchowsky S, Taylor K. *The Insiders juvenile crime prevention program*. Richmond: Virginia Department of Corrections. 1981.
Vreeland AD. *Evaluation of Face-to-Face: A juvenile aversion program*. Unpublished doctoral dissertation, University of Texas,
Dallas. 1981.

Yarborough JC. *Evaluation of JOLT as a deterrence program*. Lansing, Michigan: Michigan Department of Corrections. 1979.

10.5.2 References to studies excluded from this review

Aims Multimedia. *Scared Straight! 20 years later* [film]. Clatsworth, California, Author. 1999.

Ashcraft JL. *Closeout report on the Orleans Parish (LA) Juvenile Awareness Program*. New Orleans, LA: Mayor's Criminal Justice Coordinating Council. 1979.
Bazemore G., Stinchcomb, JB., Leip, LA. Scared smart or bored straight? Testing deterrence logic in an evaluation of police-led truancy intervention. *Justice Quarterly* 2004: 21:269-299.

Berry RL. *Shape up: the effects of a prison aversion program on recidivism and family dynamics*. PhD dissertation, Department of Psychology, University of Northern Colorado. 1985.

Blunkett D. Scared Straight? *Public Policy Research*2008: 15(2): 77-79.
Brodsky SL. The prisoner as an agent of attitude change: a study of prison profiles' effects. *British Journal of Criminology* 1970;10:280-285.

Buckner JC, Chesney-Lind M. Dramatic cures for juvenile crime: An evaluation of a prisoner-run delinquency prevention program. *Criminal Justice & Behavior* 1983;10(2):227-247.

Chesney-Lind M. *'Ike Na Pa'ahao: the experience of the prisoners. A juvenile awareness program*. Report No. 258. Manao, Hawaii: University of Hawaii at Manoa, Youth Development & Research Center. 1981.

Dean DG. The impact of a juvenile awareness program on select personality traits of male clients. *Journal of Offender Counseling, Services and Rehabilitation* 1982;6(3):73-85.

Feinstein S. Another look at scared straight. *The Journal of Correctional Education* 2005; 56(1): 40-44.

Gilman L, Milin RK. *An evaluation of the Lifers' Group Juvenile Awareness Program. New Jersey State Prison, Rahway, New Jersey*. Trenton, NJ: Department of Corrections. 1977.

Klenowski PM., Bell, KJ., Dodson, KD. An empirical evaluation of juvenile awareness programs in the United States: Can juveniles be 'Scared Straight'? *Journal of Offender Rehabilitation* 2010: 49: 254-272.

Langer S. *Fear in the deterrence of delinquency: A critical analysis of the Rahway State Prison Lifer's Program*. Phd Dissertation, Criminal Justice, Rutgers University, Newark, New Jersey. 1980.

Lloyd C. To scare straight or educate? The British experience of day visits to prison for young people. *Home Office Research Study No. 149*. London, UK: Home Office. 1995.

Mitchell JJ, Williams SA. SOS: Reducing juvenile recidivism. *Corrections Today* 1986;48(3):70-71.

Nelson Z. *The Day in Prison Program. The First Twelve Months*. Victoria, Australia: Community based Corrections Division, Victoria Office of Corrections. 1991.

New South Wales Bureau of Crime Statistics and Research. *Day in Gaol Programme: Research Report No. 8*. Author. 1980.

Nygard CH. *Synopsis of the findings, conclusions and recommendations from the evaluational study of the Department's Youth Assistance Programs*. New York State Department of Correctional Services, Division of Program Planning, Research and Evaluation. 1980.

O'Malley P, Coventry G, Walters R. Victoria's Day in Prison Program: An evaluation and critique. Australian and New Zealand Journal of Criminology 1993;26(2):171-183.

Portnoy RN. Ego defenses as a predictor of deterrence. Ph.D. dissertation, Department of Psychology, University of Nebraska. 1986.

Rasmussen DW, Yu Y. *An evaluation of juvenile justice innovations in Duval County, Florida*. Tallahasse, FL: Florida State University. 1996.

Shapiro A. Scared Straight [film]. Santa Monica, CA: Pyramid Films. 1978.

Storvall AE, Hovland A. The Ullersmo Project: Scared Straight in Norway 1992-1996 [Ullersmoprosjecktet: "Scared Straight" I Norge 1992¬1996]. *Nordisk Tiddskrift for Kriminalvidenskab* 1998;85(2):122-135.

Trotti TC. *Save the Children Program -An Analysis of Client Reaction*. Columbia, SC: South Carolina Department of Youth Services, Research and Evaluation Unit. 1980.

Wilson D., Groombridge, N. I'm making a TV programme here: Reality TV's *Banged Up* and public criminology. *Howard Journal of Criminology* 2010: 49(1): 1-17.

Windell JO., Allen, Jr. JS. An application of fear appeal messages to enhance the benefits of a jail encounter program for youthful offenders. *Youth Violence and Juvenile Justice* 2005: 3(4): 388-394.

10.5.3 Additional references

Blum J. and Y. Woodlee. 2001. Trying to give kids a good scare. *Washington Post* June 3:C01.

Dehnart, Andy, 2011. Beyond Scared Straight's Real-Life Controversy. *The Daily Beast*. February 23rd. Online at: http://www.thedailybeast.com/articles/2011/02/23/beyond-scared-straights-real-life-controversy.html.

Finckenauer, James O. and Patricia W. Gavin. 1999. *Scared Straight: The Panacea Phenomenon Revisited*. Prospect Heights, Illinois: Waveland Press.

Franklin, Patricia. 2000. Read to succeed: An inmate to inmate literacy program in Washington State. *Journal of Correctional Education* 51 (3): 286-292.

Hall A. 1999. Jailhouse shock aims to scare youths straight. *The Scotsman* October 26:12.

Holley, Phillip D. and Dennis Brewster. 1996. A description of Speak Outs in Oklahoma Prisons. *Oklahoma Criminal Justice Research Consortium Journal* volume 3 (August).

Lipsey Mark W. 1992. Pages 83-127 in Thomas C. Cook, Harris Cooper, David S. Cordray, Heidi Hartmann, Larry V. Hedges, Richard L. Light, Thomas A. Louis, and Frederick M. Mosteller (eds). *Meta-Analysis for Explanation*. New York: Russell Sage.

Lipsey Mark W. and David B. Wilson. 1998. Pages 313 – 345 in: Rolf Loeber and David P. Farrington (eds.). *Serious and violent juvenile offenders: Risk factors and successful interventions*. Thousand Oaks, CA: Sage Publications.

Lipton Douglas, Robert Martinson, and Judith Wilks. 1975. The Effectiveness of Correctional Treatment. New York, NY: Praeger.

Locke Thomas P. 1984. *An Analysis of the Kansas State Penitentiary Juvenile Education Program* (unpublished Master's thesis). Department of Psychology, University of Kansas.

Lundman Richard J. 1993. *Prevention and Control of Juvenile Delinquency*. 2nd Edition. New York: Oxford University Press.

Middleton J., E. Reeves, R. Lilford, F. Howie, C. Hyde, D. Elbourne, A. Oakley, and D. Gough. 2001. Collaboration with the Campbell Collaboration. British Medical Journal 323:1252.

Muhammed L. 1999. Kids and crooks revisited: Some were 'Scared Straight!'. *USA Today*. (April 12): 4D.

O'Donnell, Robert and George P. White. 2001. Teaching realistic consequences to the most angry and aggressive students. *Middle School Journal* 32 (4): 40-45.
Petrosino, Anthony J. (2000). Answering the why question in evaluation: The causal-model approach. *Canadian Journal of Program Evaluation* 15 (1): 1-24.
Petrosino Anthony J. 1995. The hunt for experimental reports: Document search and efforts for a 'What works?' meta-analysis. *Journal of Crime and Justice* 18:63-80.

Petrosino Anthony. *'What Works?' Revisited Again: A Meta-Analysis of Randomized Experiments in Rehabilitation, Deterrence and Delinquency Prevention* [dissertation, Rutgers University]. Ann Arbor (MI): University Microfilms.

Petrosino Anthony, Robert F. Boruch, Cath Rounding, Steve McDonald, and Iain Chalmers. Assembling the Campbell Collaboration Social, Psychological, Educational and Criminological Trials Register (C2¬SPECTR). *Evaluation Research in Education* 14(3 & 4): 206 - 219.

Petrosino Anthony, Carolyn Turpin-Petrosino, James O. Finckenauer. 2000. Well-meaning programs can have harmful effects!: Lessons from experiments in Scared Straight and other like programs. *Crime & Delinquency* 46: 354 - 379.

Robinson, L.O. and J. Slowikowski (2011). Scary -- and ineffective. Traumatizing at-risk kids is not the way to lead them away from crime and drugs. Baltimore Sun, January 31st. Online at: http://articles.baltimoresun.com/2011-01-31/news/bs-ed-scared-straight-20110131_1_straight-type-programs-straight-program-youths.

Scripps J. 1999. Prison tour serves as a wake-up call. *The Forum* (Oct 27): 1.
Sherman Lawrence W., Denise Gottfredson, Doris Layton MacKenzie, John Eck, Peter Reuter, Shawn Bushway. 1997. *Preventing Crime: What Works, What*

Doesn't, What's Promising. A Report to the United States Congress. College Park, MD: University of Maryland, Department of Criminology and Criminal Justice.
Trusty G. 1995. Sheriff's office, juvenile court resources used for restarts. *Louisiana Youth Care Magazine* 18(5): 3-5.

United Community Action Network. Services: *Wisetalk (Scared Straight)*. www.ucan.av.org/services.htm. (accessed 26 April 2001).

United Press International, August 21, 2003, p 1008233w3635.

UPN 1999. *Scared Straight! 20 Years Later*. Television programmed on US television: host Danny Glover (http://www.contrib.andrew.cmu.edu/~aaron2/upn/upn¬specials.html). 8pm 15 April 1999.

U.S. Congress, House Committee on Education and Labor. 1979. *Oversight on Scared Straight*. Hearings before the House Subcommittee on Human Resources, 96th Congress, 1st Session, June 4th. General Printing Office: Washington, DC.

U.S. Department of Health and Human Services. 2001. *Youth Violence: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services.

Weisburd David, Lawrence W. Sherman, and Anthony Petrosino. 1990. *Registry of Randomized Experiments in Criminal Sanctions*, 1950¬1983. Los Altos, CA: Sociometics Corporation, Data Holdings of the National Institute of Justice.