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Effectiveness of Restorative Justice Principles in Juvenile Justice: A Meta-Analysis

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1 Plain Language Summary

The restorative justice theoretical framework views crime as a violation of people and relationships. These violations in turn create an obligation to make things right. Restorative justice aims to reestablish the balance that has been offset as a result of a crime by involving the primary stakeholders (i.e. victim, offender, and the affected community) in the decision-making process of how best to restore this balance. The focus is on healing as opposed to punishment. Other important principles of restorative justice include offender accountability for wrongdoing, respect for all participants, and the centrality of the victim throughout the process.

A fundamental component of restorative justice programs is some form of dialog or interaction between the offender and the victim or a victim surrogate, with some programs extending participation to family and community members. Examples of programs include Victim-Offender Mediation, Family Group Conferencing, and Sentencing Circles. Furthermore, some routine practices of the juvenile justice system such as restitution are consistent with restorative justice principles, and some programs incorporate some aspect of the framework, such as teen courts. Several programs for juvenile and adult offenders have been created and implemented within various justice and non-justice settings. These programs have also been tested over the past several decades, producing a substantial body of evidence.

The objective of this study was to systematically review and statistically synthesize all available research that, at a minimum, compared participants in a restorative justice program to participants processed in a more traditional way using meta-analytic methods. Ideally, these studies would include research designs with random assignment to condition groups, as this provides the most credible evidence of program effectiveness.

Our systematic search identified 99 publications, both published and unpublished, reporting on the results of 84 evaluations nested within the 60 unique research projects or studies. From these studies, we extracted results related to delinquency, non-delinquency, and victim outcomes for the youth and victims participating in these programs.

Overall, the results evaluating restorative justice programs and practices showed a moderate reduction in future delinquent behavior relative to more traditional juvenile court processing. However, these results were smaller for the more credible random assignment studies, raising concerns about the robustness of this overall result.

Promising findings in terms of delinquency outcomes for the youth were seen for victim-offender conferencing, family group conferencing, arbitration/mediation programs, and circle sentencing programs. However, in all cases the evidence is equivocal with lower effects for random assignment studies and high variability in

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findings across studies. The effects for restitution, teen courts, impact panels, and reparative boards are less encouraging, suggesting that these may not be effective programs. In contrast, cautioning and diversion programs had the largest reductions in delinquency, suggesting that this approach may be effective for low-risk and first-time youthful offenders.

Promising findings were seen for many of the non-delinquency outcomes for the youth, although some uncertainty remains about these outcomes given the small number of studies and variability across studies. Still, youth participating in restorative justice programs had a greater perception of fairness. The results also suggest that restorative justice youth are more satisfied with the restorative justice programs and have somewhat less supportive attitudes toward delinquency. Similarly, victims reported improved perceptions of fairness, greater satisfaction, improved attitudes toward the juvenile, are more willing to forgive the offender, and are more likely to feel that the outcome was just.

The bottom line for restorative justice programs and practices is that the evidence is promising, suggesting possible but still uncertain benefits for the youth participants in terms of reduced future delinquent behavior and other non-delinquent outcomes. Victim participants in these programs, however, do appear to experience a number of benefits and are more satisfied with these programs than traditional approaches to juvenile justice. Additional high quality research of these programs is clearly warranted given these promising but uncertain findings.

2 Abstract

2.1 Background

The restorative justice theoretical framework views crime as a violation of people and relationships. These violations in turn create an obligation to make things right. Restorative justice aims to reestablish the balance that has been offset as a result of a crime by involving the primary stakeholders (i.e. victim, offender, and the affected community) in the decision-making process of how best to restore this balance. The focus is on healing as opposed to punishment. Other important principles of restorative justice include offender accountability for wrongdoing, respect for all participants, and the centrality of the victim throughout the process.

A fundamental component of restorative justice programs is some form of dialog or interaction between the offender and the victim or a victim surrogate, with some programs extending participation to family and community members. A youthful offender and victim must agree to participate in such a dialog. Examples of programs include Victim-Offender Mediation, Family Group Conferencing, and Sentencing Circles. Possible outcomes of these programs may include holding the youth accountable for his or her actions, the victim feeling that their voice was heard, an apology from the offender (possibly in spoken or written form), restitution, or community service. Furthermore, some routine practices of the juvenile justice system such as restitution, are consistent with a restorative justice principle, and some programs incorporate some aspect of the framework, such as teen courts.

Many programs for both juvenile and adult offenders have been implemented and tested over the last several decades. The evidence regarding the effectiveness of restorative justice programs for juveniles is mostly positive, although the most recent meta-analyses have come to contradictory findings regarding their effectiveness in reducing delinquency.

2.2 Objectives

The objective of this study was to systematically review and meta-analyze all available experimental (random assignment) and quasi-experimental comparison group studies on the effectiveness of restorative justice programs and other responses to youthful delinquency that are consistent with restorative justice principles. We included a broad range of programs that span a continuum from fully embracing the restorative justice model to programs that include an aspect related to a restorative justice principle.

2.3 Search methods

Our search strategy attempted to systematically identify all eligible studies that have been conducted independent of publication status and format. The search strategy was executed from January 5, 2016 through January 22, 2016. A total of 41 electronic databases and 50 state websites were searched. Additionally, numerous organization websites were searched for less formally published works. A total of 31,019 titles were identified through this process and screened. After removing obviously irrelevant titles, 1,312 references remained and were screened against the eligibility criteria, producing 99 eligible references representing 60 unique research studies.

2.4 Selection criteria

To be eligible, studies must have tested the effectiveness of a juvenile justice program that included a restorative justice component. This included restorative justice programs that are solely based on restorative justice principles, as well as programs that implemented one or more restorative justice feature. The study sample must have consisted of youth aged 18 or under. Both experimental (random assignment) and quasi-experimental studies that included a comparison group were eligible. Relevant outcomes included measures of criminal behavior as well as non-criminal outcomes, such as participant and victim satisfaction, and perceptions of fairness. Data suitable for computing an effect size must have been reported in the manuscript.

2.5 Data collection and analysis

Extensive data were extracted from each study, including information related to the general study characteristics, features of each treatment and comparison condition, characteristics of the participant sample, methodology, outcome measures, and results. All studies were double-coded by at least two members of the research team and all discrepancies were resolved through a consensus discussion. The effect sizes were analyzed using inverse variance weighted random effects meta-analysis methods.

2.6 Results

A total of 60 unique studies reported on the results of 84 distinct evaluations. A few studies had multiple independent restorative justice programs compared to a single control group, raising the number of treatment-comparison contrasts available for analysis to 91. Most of these studies were conducted in the United State (77%) and 65 percent were published after 1999.

Given the broad scope of this review, we identified a diversity of programs. The majority of these programs involved some form of a meeting between the youth who committed the delinquent act and a victim or other community representative. Other programs

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included teen courts, restitution, cautioning/diversion, and a mix of other programs with some element consistent with restorative justice principles.

Overall, the results evaluating restorative justice programs and practices showed a moderate reduction in future delinquent behavior relative to more traditional juvenile court processing. However, results were smaller for the more credible random assignment studies, raising concerns about the robustness of the overall finding. The evidence regarding specific restorative justice programs, however, are mixed.

Victim-offender conferencing had a positive overall effect on delinquency, but this effect was based solely on methodologically weak studies. Family group conferencing had a similarity positive overall effect, but the effect for the more credible random assignment studies was small, raising concerns regarding the effectiveness of this approach. Arbitration/mediation programs had a small overall effect and while promising, the effectiveness of this program type is uncertain given the current evidence. Circle sentencing programs had a moderate to small overall effect, but with only two studies in the category, no firm conclusions regarding the effectiveness of this approach can be drawn.

Both restitution programs and teen courts had small overall effects for delinquency outcomes and these effects were essentially zero for the higher quality studies. Similarly, the effects for impact panels and reparative boards were small, with no random assignment studies contributing to the analysis.

Cautioning and diversion programs showed the largest overall mean effect, although the number of studies in which this finding was based is small. However, this evidence suggests that cautioning and diversion are effective for low-risk and first-time youthful offenders.

The statistical modeling of program elements suggests that programs with a pre-conference or pre-mediation meeting before the main conference or mediation session have better outcomes in terms of delinquent behavior than those that do not.

Promising findings were seen for many of the non-delinquency outcomes for youth, although some uncertainty remains about these outcomes given the small number of studies and variability in effects. That said, youth in the restorative justice programs had a greater perception of fairness. The results also suggest that restorative justice youth are more satisfied with the restorative justice programs and have somewhat less supportive attitudes towards delinquency.

Victims have improved perceptions of fairness, greater satisfaction, improved attitudes toward the juvenile offender, are more willing to forgive the offender, and are more likely to feel that the outcome was just than victims of youth processed by the traditional juvenile justice system. Outcomes related to emotional well-being, however, did not indicate any consistent improvement for the restorative justice participants (youth or victims) relative to the traditional juvenile justice system processing.

2.7 Author's conclusions

Restorative justice programs and practices focus on restoring the harm done by a criminal act, rather than focusing on punishment. The evidence regarding the effectiveness of these programs in reducing continued delinquent behavior is promising, but given methodological weaknesses of the literature do not allow for a strong positive conclusion. Similarly, non-delinquency outcomes for youth are promising, but inconsistent, with the exception of the youth's perceptions of fairness, which were greater for the restorative justice programs. There was also strong evidence for the effectiveness of these programs for victims. Victim participants appear to experience improved outcomes related to perceptions of fairness and satisfaction. Additional high quality research of these programs is clearly warranted given these promising, but uncertain findings.

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3 Background

3.1 The problem, condition, or issue

From a restorative justice perspective, a criminal act on the part of a youth harms the relationship between that youth and the victim, as well as the broader community. Youth crime and delinquency more broadly also disrupts the prosocial development of a youth and the social bonds with the community, especially among those victimized. This creates an obligation for the reparation of harm caused, which is often the province of the juvenile justice system. In prior decades, this response was one characterized by a punitive ideological orientation that began in the 1970s and 1980s, but has since oscillated to a more rehabilitative and balanced approach. Within this context, juvenile justice agencies are actively seeking effective alternatives to incarceration and other punitive measures. One plausible alternative is restorative justice programming. Restorative justice serves as a unique policy framework for dealing with youth crime and other adolescent behavioral problems (Bazemore, 2001). The aims of restorative justice are to facilitate reparation and reestablish harmony between an offender and a victim, typically through face-to-face mediation. Restorative justice programs, if shown to be effective, can be part of a mix of diversionary and post adjudication options for youth brought into contact with the juvenile justice system.

3.2 Defining restorative justice

Similar to other criminal justice innovations such as reentry, restorative justice suffers from conceptual issues. Specifically, restorative justice is a contested concept without definitional boundaries, making it hard to limit its essence to that of a program, practice, philosophy, or outcome (Daly, 2016; Daly & Proietti-Scifoni, 2011; Dünkel, Horsfield, & Păroșanu, 2015). According to Van Ness and Strong (2006), three core principles underlie the theoretical basis of restorative justice: repairing harm, stakeholder involvement, and transforming the role of the community and government. These principles are what differentiate a restorative justice practice from other criminal justice actions and approaches. The theory most strongly associated with restorative justice practices and principles is Braithwaite's 1989 reintegrative shaming theory. Reintegrative shaming involves community acknowledgement and condemnation of the wrongdoing (i.e., the shaming component). This is followed by forgiving the offender for their actions and reintegrating them back into the community once they have made amends and repaired the harm with the victim and society (i.e., the reintegrative component). An important distinction for Braithwaite's theory is that shaming must be reintegrative as opposed to stigmatizing. Reintegrative shaming is considered to be an integrated theory, borrowing from labeling, subcultural, control, opportunity and social learning theories of crime.

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Other theories integrated as theoretical explanations of restorative justice include procedural justice theory, defiance theory, exchange theory and social disorganization theory (Braithwaite, 2004; Bazemore & Schiff, 2005).

Daly (2016) argues the long-term viability of restorative justice depends on framing it as a justice mechanism and not as an alternative to retributive justice, punitive practices, or current thinking on crime and justice issues. Instead, restorative justice should be considered and defined as one of a number of innovative approaches to doing justice (Daly, 2016, p.17). In essence, restorative justice is another innovative tool the criminal and juvenile justice systems have at their disposal to fulfill their goals. This same logic follows for restorative justice values and principles. According to Daly (2016), these are aspects that also need to be subsumed under the definition of restorative justice as a justice mechanism. Daly's 2016 definition of restorative justice holds that it is a "contemporary justice mechanism to address crime, disputes, and bounded community conflict. The mechanism is a meeting (or several meetings) of affected individuals, facilitated by one or more impartial people" (p. 21).

The task of defining restorative justice creates an opportunity to subject restorative justice to empirical and theoretical inquiry. Accordingly, this better serves the field in building an empirical knowledge base around restorative justice. In this light, the aim of this review closely aligns with Daly's 2016 definition of restorative justice as an innovative mechanism, or a specificity of activities that can be empirically evaluated. In addition to examining the effectiveness of self-identified restorative justice programs, we will examine other juvenile justice practices that are consistent with one or more restorative justice principles. Furthermore, we will examine the relative effectiveness of specific restorative justice program elements that are included in various juvenile justice practices.

3.3 The intervention and how it might work

Zehr (2002) articulates crime as a violation of people and relationships. These violations in turn create an obligation to make things right. Restorative justice aims to reestablish the balance that has been offset as a result of a crime by involving the primary stakeholders (i.e. victim, offender, and the affected community) in the decision making process of how best to restore this balance (Braithwaite, 1998). The focus is on healing as opposed to punishment. Other important principles of restorative justice include offender accountability for wrongdoing, respect for all participants, and centering the approach on victims (Umbreit & Armour, 2010).

A fundamental activity of restorative justice programs is some form of dialog or interaction between the offender and the victim or victim surrogate, and possibly extending participation to family and community members. Various outputs may result from a youthful offender and victim agreeing to participate in such a dialog. These include holding the youth accountable for his or her action, the victim feeling that their voice was heard, an apology from the offender (possibly in spoken or written form), and restitution or community service. These outputs are expected to produce the short-term benefits of greater satisfaction with the juvenile justice system for both victims and offenders, a greater sense of justice for the victims, and forgiveness on the part of the

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victim and/or community. Long-term benefits expected of this process include reducing future offending and juvenile justice system costs.

Restorative justice practices for youth can take place at a variety of points throughout the juvenile justice system and within a range of settings. For example, restorative justice dialogue can be used as a preventative mechanism or as a conflict resolution approach within schools or in neighborhood and community-based settings (Bazemore, 2001). Furthermore, police and juvenile courts can use restorative justice practices as a diversion strategy or as an alternative-sentencing approach. Finally, restorative justice programs can also be used in probation and even within residential treatment settings.

In practice, restorative justice takes multiple forms, with various programs incorporating fundamental principles in their own unique way. Victim-offender mediation (VOM), also commonly referred to as victim-offender conferencing (VOC) and victim offender dialogue (VOD), is the most popular and widely used approach in the United States and internationally (Umbreit & Armour, 2010). VOM is considered to be an evidence-based practice and is defined as a process through which willing participants have the opportunity to meet face-to-face in a structured and safe setting with the assistance of a third-party mediator (Umbreit, Vos, & Coates, 2006; Umbreit & Armour, 2010). The goal is to hold the offender directly accountable for his or her actions, while providing the victim with the opportunity to have his or her voice heard (Umbreit & Armour, 2010).

Other examples of restorative justice programs include group conferencing (i.e. family group conferencing, community group conferencing) and circles (i.e. peace circles, sentencing circles). Group conferencing involves the victim and the offender, as well as family or support persons for the involved parties, a facilitator, and at times, participants from the community. This approach places a strong emphasis on family involvement and participation. Circles, like group conferences, may involve comparable participants (i.e. victim, offender, support persons, etc.), but may also involve a greater number of community representatives. In addition, physically sitting and communicating in a circle is often an important element of the circle process. Other programs that do not fit neatly into the categories of VOM, group conferencing, or circles include reparative boards and other community-based programs. Generally, the most important measures of restorative justice program efficacy include rate and reasons for participation, participant satisfaction, perceptions of fairness, restitution and reparation of harm, diversion, recidivism, and costs (Umbreit et al., 2006).

Restorative justice policies and programs continue to expand across the United States. As of 2010, 19 states introduced or passed legislation promoting a “balanced and restorative juvenile justice system” (Umbreit & Armour, 2010). An additional 30 states mentioned restorative justice principles in some capacity in their mission statements or policy plans (Umbreit & Armour, 2010). Bazemore, Umbreit, and O’Brien (2000) notes that nearly every state across the country has implemented restorative justice principles in some capacity through programs or policies at the state, regional, or local level. In recent years, school-based restorative justice practices have rapidly expanded across the country and have been recognized as a promising approach to handling disciplinary issues in an effort to combat the presumed school-to-prison pipeline (Gonzalez, 2012). In addition, in 2014 the U.S. Department of Education published a set of guiding principles for improving school climate and discipline. They encouraged schools to revise their discipline policies, discouraging zero-tolerance and other punitive-based policies and

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instead recommended alternative disciplinary approaches such as restorative justice (U.S. Department of Education, 2014).

3.4 Prior reviews

Several authors have meta-analyzed the body of evaluation research on restorative justice programs. Most of these reviews, however, are roughly a decade old with the exception of three recent reviews that are highly restrictive in terms of the search and inclusion criteria (Bain, 2012; Livingstone, Macdonald, & Carr, 2013; Strang, Sherman, Mayo-Wilson, Woods, & Ariel, 2013). The findings are encouraging, but not consistent across reviews.

One of the earliest meta-analyses of restorative justice programs was by Bonta, Wallace-Capretta, Rooney, and Mcanoy (2002) that failed to find support for these programs. This review showed no reduction in recidivism associated with victim-offender meetings or victim-offender meetings plus restitution. However, this meta-analysis did not examine the heterogeneity of the findings and used incorrect statistical methods to test for statistical significance. More generally, the methods used are not consistent with the generally recommended approaches for meta-analyses, such as those put forth by the Campbell Collaboration (<http://campbellcollaboration.org>), weakening any inferences that can be drawn from this review.

Lipsey's (2009) large meta-analysis of 548 studies of juvenile delinquency programs included restorative justice programs and programs with restorative justice components. Lipsey (2009) identified 14 studies that involved mediation and 32 studies that included restitution. The findings showed small reductions in offending associated with these program types. However, overall, these programs were neither more nor less effective than other rehabilitative type programs.

Williams-Hayes' (2002) meta-analytic review focused on the impact of two restorative justice programs, VOM and family group conferencing, using juvenile and adult samples. The outcomes of interest included victim fearfulness, recidivism, victim/offender satisfaction, and restitution negotiation and completion. A total of 40 studies were identified and included a mixture of adult and juvenile samples, but with juvenile samples constituting the majority of the sample. The sample also primarily included studies of VOM (80%) compared to family group conferencing (20%). The findings did not indicate support for either VOM or family group conferencing in reducing reoffense rates. Results did show a positive effect for victim/offender satisfaction and the negotiation and completion of restitution compared to comparison groups. Yet, significant limitations challenged the credibility of the results. Specifically, there were an insufficient number of effect sizes to examine the various outcomes of interest and the analysis did not maintain statistical independence between effect sizes, potentially biasing the findings.

Nugent, Williams, and Umbreit (2003) conducted a meta-analysis of restorative justice programs that focused on juveniles and included victim-offender-mediation (VOM) programs (see also Bradshaw, Roseborough, & Umbreit, 2006). The outcome of interest for this meta-analysis was any indicator of reoffending, including an offense for which

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the youth was found guilty, any record of arrest, or any official contact with law enforcement. The systematic search identified 15 studies that reported results on 19 treatment–comparison groups. Overall, VOM was found to be associated with a significant reduction in recidivism. However, the results were highly heterogeneous suggesting meaningful differences in effects across studies. The moderator analyses showed that the results were related to the methodological rigor of the study with higher quality studies producing more homogeneous and consistently beneficial results.

A meta-analysis by Latimer, Dowden, and Muise (2005) took a similar approach to Williams-Hayes (2002), focusing on two restorative justice programs: VOM programs and conferencing programs. The programs analyzed required voluntary participation (an important principle of restorative justice) and involved both the offender and victim. This meta-analysis identified 22 unique studies representing 35 treatment–comparison groups. The findings support the effectiveness of restorative justice programs with positive findings on victim and offender satisfaction, restitution compliance, and recidivism. However, as with Bonta et al. (2002), this meta-analysis used incorrect statistical methods, potentially biasing the findings.

A relatively recent review by Bain (2012) is similar to the current review in that this review sought to identify aspects of restorative justice processes that reduce recidivism. However, with the exception of a few variables, these aspects were more conceptual than direct measures of activities (i.e., inclusion, balance of interest, voluntary practice, and problem-solving). This review identified 24 studies with 21 treatment versus control conditions, eight of which were randomized. A smaller subset of the sample included process studies. The studies also included a mixed sample of juveniles and adults. The results showed a small positive effect of restorative justice programs. However, the study failed to use appropriate statistical methods. The author concluded that while contact with the victim was found to reduce recidivism, community participation, victim satisfaction, and the opportunity to participate in a consensus/reparation plan actually did not reduce recidivism.

The two newest meta-analyses, Livingstone et al. (2013) and Strang et al. (2013), were restricted to randomized controlled trials, that is, studies that used random assignment to a restorative justice program and traditional juvenile justice processing. These two reviews came to contradictory conclusions. Strang et al. (2013) concluded that, “on average, RJC[s] [restorative justice conferences] cause a modest but highly cost-effective reduction in repeat offending, with substantial benefits for victims” (p. 2). In contrast, Livingstone et al. (2013) concluded that, “there is currently a lack of high quality evidence regarding the effectiveness of restorative justice conferencing for young offenders” (p. 2). The former review included ten studies, two of which were studies of juvenile programs. The latter included four studies, all of which included programs for youth 18 years of age or younger. The difference in the included studies likely accounts for the contradictory findings.

The evidence regarding the effectiveness of restorative justice programs for juveniles is mostly positive. However, the most recent reviews have come to contradictory findings. Our proposed meta-analysis aims to resolve this conflict by examining a broader collection of studies, including both randomized controlled studies and quasi-experimental comparison group designs, to directly test whether various features of restorative justice programs are more strongly related to recidivism. Although

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including quasi-experimental studies raises internal validity issues, the larger collection of studies provides additional variability to explore in a moderator analysis. That is, by working with a larger set of studies, we can examine the influence of specific restorative justice components, such as the involvement of parents in the conference or the inclusion of restitution, on effectiveness.

4 Objectives

Research on the effectiveness of restorative justice programs and their underlying principles and mechanisms is necessary as adolescent behavioral problems and school discipline practices have continued to gain attention. The proposed study evaluated the following research questions:

1. How effective are restorative justice programs for youth across relevant outcomes? These outcomes include but are not restricted to recidivism, participant satisfaction with the restorative justice program, participant perceptions of fairness, apology to victims, restitution or other agreed upon outcomes to repair the harm done as a result of the offense.
2. What is the relative effectiveness of different restorative justice program components? Components include such things as having a victim present, restitution, offender apology to a victim, and involvement of other family or community members.

This specific component approach has been advanced before. For example, Umbreit and Armour (2010) advocate for examining components of restorative justice programs as a way to examine the body of restorative justice literature, as proposed above. Specifically, they argued that this approach:

... would allow for participant responses and outcomes to be analyzed across actual variations in structure and format, rather than according to what the intervention is called. [Leading restorative justice practitioner and theorist, Howard Zehr,] has also called for a reconsideration of the conventional typology, suggesting that restorative justice programs can be placed on a continuum from fully restorative to not restorative based not on dialogue type, but the meeting of specific criteria including, among others, the involvement of the relevant stakeholders, the victim-centered nature of the process, and the adequacy of the restorative justice dialogue to deal with harms, needs, and causes. (Umbreit & Armour, 2010, p. 21)

To address these research questions, we included a broad range of programs that span this continuum from fully embracing the restorative justice model to programs that include an aspect related to a restorative justice principle. A goal of this project was to understand how outcomes vary along this continuum, with the aim to inform both practice and theory.

5 Methods

5.1 Search strategy

Our search strategy attempted to systematically identify all eligible studies that have been conducted independent of publication status and format (White, 2009; Rothstein & Hopewell, 2009). The search strategy was executed from January 5, 2016 through January 22, 2016 and started with studies identified as eligible in Lipsey's (2009) large meta-analysis of juvenile delinquency programs. The search protocol used for this meta-analysis has been extensive and updated over the course of several decades, with the initial search being completed in the 1980s.

The keywords used to search the computerized bibliographic databases represent three distinct categories of terms. Within each category, terms were connected with the Boolean "OR". The categories themselves were connected with the Boolean "AND". Thus, a hit must have at least one term from each category. This helped maximize the efficiency of the search process.

1. **Population:** youth, child, juvenile, delinquent, criminal, victim, devian?, student
2. **Treatment:** "victim-offender", mediation, "restorative justice", "peacemaking circles", restitution, reconciliation, "victim-offender conferencing", "victim-offender reconciliation", "victimoffender dialogue", "restorative justice conferencing", "family group conferencing", "community group conferencing", "restorative group conferencing", "restorative justice circles", "repair of harm circles", "sentencing circles"
3. **Methodology:** outcome, evaluate, evaluation, effect, effectiveness, recidivism, experiment, quasi, assessment, RCT, "randomized control"

These keywords were further developed and refined based on initial search results. A detailed log of the search process and results can be found in section 14.

A total of 41 electronic databases were searched and included: Australian Institute of Criminology; ASSIA—Applied Social Science Index and Abstracts; CINCH (the Australian Criminology Database) via Informit; Criminal Justice Abstracts; EconLit; First Search—Dissertation Abstracts; Google Scholar; HeinOnline; Jill Dando Institute of Crime Science (JDI) via OVID; NCJRS (National Criminal Justice Reference Service); Policy Archive; PolicyFile; Criminal Justice Periodicals (now ProQuest Criminal Justice); Dissertations & Theses: Full Text; Evidence-Based Resources from the Joanna Briggs Institute; PubMed; PsycINFO; Public Affairs Information Service; RAND Documents; Social Sciences Citation Index; Social Services Abstracts; Sociological Abstracts; SSRN—Social Science Research Network; and Worldwide Political Science Abstracts.

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Additionally, the following organizational websites were searched for potential grey literature studies: Association of Chief Police Officers (ACPO); Association of Chief Police Officers of Scotland (ACPOS); Association of Police Authorities (APA); Australian Research Council Centre of Excellence in Policing and Security (CEPS); Canadian Police Research Centre; Her Majesty's Inspectorate of Constabulary (HMIC); Home Office (UK); Medline/Embase; Ministry of Justice (UK); National Council for Crime Prevention (Sweden); National Institute of Justice (NIJ); Office of Juvenile Justice and Delinquency Prevention (OJJDP); Scottish Institute for Policing Research (SIPR); and U.S. state juvenile justice agencies and court services.

5.2 Inclusion criteria

The eligibility criteria define the population of interest for the study; that is, they define which studies are included and which are excluded. To be eligible for inclusion in this meta-analysis, a study must have met all of the eligibility criteria detailed below. No restriction was placed on the nature of the publication (i.e., both published and unpublished studies were included), nor any restriction on the country in which the study was conducted. Only studies in English were considered; studies only available in other languages were excluded given the linguistic limitations of the research team.

5.2.1 Intervention

To be eligible, studies must have tested the effectiveness of a juvenile justice program that included a restorative justice component. This included restorative justice programs that are solely based on restorative justice principles as well as programs that implement one or more restorative justice feature. Such features included restitution, face-to-face meetings between the offender and victim or victim surrogate, or some other method of trying to repair the harm done by the crime, such as an apology letter.

5.2.2 Participants

Studies were eligible if the study sample only consisted of juveniles involved in the juvenile justice system or juveniles engaged in other problem behaviors with a clearly defined victim (such as another student). Youth were defined as persons age 18 or under. These youth could be formally adjudicated or diverted from formal processing as part of the restorative justice program, or have no contact with the justice system, such as youth from a school-based program.

5.2.3 Research design

The population of evaluations eligible for this review were experimental and quasi-experimental evaluations of a juvenile justice program with a restorative justice component compared to either a comparison group that was treated in a traditional fashion or was treated by an alternative program.

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To be eligible as an experimental or quasi-experimental design, a study must have met at least one of the following criteria:

1. Subjects were randomly assigned to treatment and comparison conditions or assigned by a procedure plausibly equivalent to randomization.
2. Quasi-experiments for which the subjects in the treatment and comparison conditions are generally similar. Eligible designs included those with a matched comparison group, a comparison group that was equated using statistical methods, cohort designs, or uncontrolled quasi-experiments comparing the treatment condition with a treatment as usual type group.
3. Ineligible quasi-experimental designs were those without a credible comparison group or designs where the comparison group was the youth who refused participation in the restorative justice program.

5.2.4 Outcomes

Several outcomes were of interest to this review. A study was eligible if it reported data relevant to any of these outcomes:

1. **Criminal behavior:** Any measure of criminal behavior following the treatment program (often called recidivism). Possible measures included official measures such as arrest or adjudication, or self-reported or other-reported measures of delinquency. Measures could be reported dichotomously or on a multi-item scale.
2. **Participant satisfaction:** Any measure of the victims' and offenders' satisfaction with the restorative justice process and/or outcomes.
3. **Perception of fairness:** Any measure of the perception of the victim or offender regarding whether the process resulted in a fair or just outcome.
4. **Restitution compliance:** Any measure of compliance with restitution by the youth to the victim/program.
5. **Reparation of harm:** Any measure of the reparation of harm beyond restitution, such as an apology letter.
6. **Juvenile justice system costs:** Any measures of the relative cost of the restorative justice program versus the routine processing that the youths would have received.

5.3 Effect size data

Studies must report sufficient information to compute an effect size for at least one of the outcomes of interest. Effect sizes can be computed from a broad range of statistical data. The computations used were those implemented in the online Effect Size Calculator available at: <http://cebcp.org/practical-meta-analysis-effect-size-calculator/>.

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5.4 Data collection and analysis

5.4.1 Coding

A detailed coding protocol was developed for extracting information from eligible studies. In developing this coding protocol, we drew from our own prior meta-analyses and the coding protocol for Lipsey's large juvenile delinquency meta-analysis (Lipsey, 1995, 2009; Lipsey & D. B. Wilson, 1998). A FileMaker database was developed for coding directly from the studies into the database. This database included all information related to coding and screenshots of each page of the database can be found in section 12. Several distinct categories of information were coded for each study. This included information related to the general study characteristics, features of the treatment and comparison conditions, characteristics of the participant sample, research methods, outcome measures, and results.

A complication in coding studies for a meta-analysis is identifying independent or unique research studies. A single study might be reported on across numerous publications, including technical reports and other non-formally published manuscripts. We grouped together under a single study identifier any such related manuscript that reported results or other useful information on a single research study. These references are listed under a single study identifier in section 9 to provide the references for all studies included in the meta-analysis. Another complication is that a single (or multiple related manuscripts) might report on the results from independent substudies, such as an evaluation on a common program in different jurisdictions. These independent substudies were coded separately under a common study identifier. Thus, we identified 84 unique treatment-comparison contrasts across 60 unique study identifiers. To further complicate matters, there were studies with multiple treatment conditions compared to a single comparison condition. This was the case for four studies. We coded these as unique treatment-comparison contrasts even though doing so produces a statistical dependence given the shared comparison condition. Avoiding this dependency would have meant selecting one of the treatment conditions. To maximize the number of available contrasts within each restorative justice program type, we kept these as separate treatment-comparison contrasts. The effect on the results is minor given the small number of such cases. The final number of usable treatment-comparison contrasts was 91.

We held weekly meetings to discuss coding decisions and coding challenges. This often resulted in refinements to decision rules regarding coding. A log of these issues and any final coding decisions rules was also captured in the FileMaker database (this page of the database is not shown in section 12).

All studies were double-coded by a second member of the research team. Coding discrepancies were resolved through a consensus discussion with the exception of effect size coding discrepancies; these were resolved by the first author.

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5.4.2 Statistical analysis

The standardized mean difference was used for this meta-analysis (Hedges' g). The standardized mean difference is best suited for an outcome measured on a scaled variable, such as degree of satisfaction or antisocial attitudes. The standardized mean difference was used for all outcomes. Numerous computation methods are available for the standardized mean difference to accommodate the varied form of statistical information provided in study reports. These methods are detailed in Lipsey and D. B. Wilson (2001) and expanded on and implemented in the online Effect Size Calculator available at: <http://cebc.org/practical-meta-analysis-effect-size-calculator/>. Using these methods enabled us to make use of the broadest possible set of studies.

Measures of delinquency (recidivism) are most typically measured dichotomously (yes/no). Such outcomes are a natural fit for the odds ratio or risk ratio effect size. However, given that we had many other outcome constructs that were measured on a scaled variable, we converted these dichotomously measured outcomes to the Hedges' g using the Cox method for converting odds ratios into g 's (Sánchez-Meca, Marín-Martínez, & Chacón-Moscoso, 2003). This approach simply rescales the odds ratio effect size, but does not otherwise affect the statistical models; that is, tests of significance, homogeneity analyses, etc., will all remain the same.

Meta-analytic methods were used to analyze the effect sizes extracted from the collection of eligible studies (Cooper, Hedges, & Valentine, 2009; Lipsey & D. B. Wilson, 2001). The general method involved using inverse variance weights to give greater weight to effect sizes from larger studies and a random effects model that assumes variability in treatment effects across studies. The DerSimonian and Laird method-of-moments estimator for the random effects variance component was used (DerSimonian & Laird, 1986). An important issue in analyzing meta-analytic data is handling multiple effect sizes from the same study. These effects are statistically dependent and must be handled appropriately (Gleser & Olkin, 2009). We dealt with this complication first by analyzing each outcome construct of interest separately, that is, criminal behavior, victim satisfaction, offender satisfaction, etc. Second, if effect sizes based on a regression model that adjusted for baseline differences was available, it was selected over any effect sizes that were unadjusted, that is, based on raw data. For the non-delinquency outcomes, this usually resulted in a single effect size per independent treatment-comparison contrast. In the few instances where this was not the case, the remaining effect sizes were averaged within the treatment-comparison contrast for that outcome. For the delinquency outcomes, we also gave preference to general measures of delinquency or measures for specific crimes, and arrest over other measures that reflected decisions further into the juvenile justice system, such as adjudication or institutionalization. If multiple effect sizes remained, these were averaged. All effect size analyses were performed in Stata using the macros created by the first author and publicly available at <http://mason.gmu.edu/~dwilsonb/home.html>.

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6.1 Results of the systematic search

The systematic search yielded a total of 31,019 references across 41 databases and 50 state websites, including duplicate references. This was reduced to 1,312 references after the removal of duplicates and the elimination of clearly irrelevant references based on a screening of the title and abstract. The 1,312 references included an additional 83 references that were added from a scanning of reference lists from prior reviews. The full-text of these 1,312 references were screened for eligibility against our eligibility criteria (see section 5.2), leaving 99 eligible references, representing 60 unique research studies. See section 13 for a flow diagram on the reference distillation process.

6.2 Description of included studies

Tables 10.1 and 10.2 display study characteristics for the 60 unique studies included in this meta-analysis. A majority of evaluations were conducted in the United States (77%), followed by Australia (13%). Close to half of the studies were conducted in the 2000s with only two studies being conducted prior to 1980. Half of the evaluated programs were managed by a criminal justice or juvenile justice entity (e.g., police, courts, probation), while a little over a fifth (22%) were managed by a non-profit, non-juvenile justice organization.

Most of the studies (52 of 60) reported on the results of a single evaluation, whereas eight studies included multiple substudies, that is, multiple independent evaluations, such as distinct jurisdiction (e.g., different cities) or restorative justice programs, each with their own comparison group. This resulted in a total of 84 unique evaluations. Across these evaluations, most were basic quasi-experimental designs with a non-equivalent comparison group and no matching or statistical controls. These are the weakest designs included in this review. Roughly 20 percent used random assignment to conditions, either with or without matching. These studies in principle provide the strongest basis for assessing the effectiveness of restorative justice programs and practices. The roughly remaining third were quasi-experimental designs that used either matching, statistical controls, or a cohort design. These are the most credible quasi-experimental designs in this context.

In terms of specific study characteristics, most studies included treatment and comparison conditions that each had at least 100 participants. Most studies had a mix of male and female youth, with only three studies restricted solely to males and only one study restricted solely to females. Most of the youth in these studies had some form of contact with the juvenile justice system, either as a non-adjudicated youth (e.g., a youth

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diverted from formal processing) or as an adjudicated youth (e.g., a youth who is formally processed). Six studies were based on youth obtained from a non-juvenile justice setting. In all six cases these were school-based studies. Finally, one study (Do, 2006) examined a victim awareness class based in an institutional setting. The racial and ethnic make-up of the samples was missing from too many studies to provide a reasonable description of this characteristic across the included studies.

The characteristics of the staff providing the restorative justice program or program component were often not clearly articulated or did not represent a clearly defined group. For roughly a third of the studies, the program staff were trained mediators, often volunteers, although this latter distinction was not always clear. For roughly a fifth of the studies, the program provider was juvenile justice personnel. The location of the treatment programs was typically in the community (62%), although a quarter (25%) occurred in a juvenile justice setting, with only a few (6) occurring in schools. Not surprisingly, most of the comparison conditions were juvenile justice based (75%).

Table 10.3 shows the frequency for the specific restorative justice programs included in this meta-analysis, and the restorative justice elements identified across the studies. Not surprisingly, the majority of studies (56%) examined an explicitly restorative justice program, such as a victim-offender conference (31%), a family group conference (9%), arbitration/mediation (7%), impact panels or reparative boards (3%), or circle sentencing program (2%). The remaining programs are not explicitly identified as restorative justice programs, but are consistent in some way with a restorative justice principle. These included restitution (13%), teen courts (12%), and cautioning/diversion (4%). Finally, roughly 20 percent of the studies fell into an other or multiple programs category. This category of included programs provided a combination of restorative justice programs or practices, including programs that provided both victim-offender conferencing and community justice boards, arbitration boards and restitution, or school-based programs that offered a number of restorative justice practices (e.g., circle sentencing and victim-offender conferencing).

In addition to categorizing each study by the restorative justice program type, we coded various program elements that may have been part of the program. Any given program may have any number of these program elements. The program elements most frequently present across the included studies were the presence of a facilitator/mediator (71%), a face-to-face meeting (70%), orders for restitution (59%), the presence of a victim (58%), some sort of restorative agreement (55%), community service requirement (53%), and the involvement of family members (49%). Less frequently occurring program elements were community involvement (29%), an apology letter (27%), pre-conference/mediation (25%), which are preparatory meetings that occur before a conference or mediation, and follow-up compliance (24%). Infrequent program elements were personal services to victims (9%), indirect or shuttle mediation (7%), victim empathy groups or classes (2%), and the use of a script (1%).

6.3 Analysis of effect sizes

A total of 689 effect sizes were computed across the 84 studies and 91 treatment-comparison contrasts. These effects represent both youth participant

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delinquency and non-delinquency outcomes, as well as outcomes for the victim participants.

6.3.1 Restorative justice programs effects on delinquency

A primary aim of this review was to assess the overall efficacy of restorative justice programs in reducing delinquency. Delinquency was defined as any measure of criminal behavior, including both official and self-reported delinquency. Although the overall results suggest that restorative justice programs are effective, this effect becomes less certain when focusing on the higher quality studies. Overall, the mean effect size was $d = 0.23$ and was statistically significant (see table 10.5). Within a juvenile justice context, this is a moderate effect size given that some of the most effective programs identified by meta-analyses have effects in the 0.40 to 0.50 range. Not surprisingly, given the diversity of programs and contexts included in this review, these effects were highly heterogeneous, suggesting differential effectiveness across the studies.

These studies represent a mix of research designs with varying risks of bias for drawing a causal inference regarding program effectiveness. We present two main ways of assessing this in table 10.5: the basic design type and an assessment of the potential direction of any bias. The design types shown in table 10.1 were collapsed into random assignment, high quality quasi-experiment, and low quality quasi-experiment. The high quality quasi-experiments were designs that included matching, statistical controls, or were based on a cohort design. The low quality quasi-experiments had no controls, neither statistical or via matching. The bias direction variable has three categories indicating whether we judged the baseline characteristics of the groups to favor the restorative justice condition, the control condition, or neither. This judgment was based on baseline descriptions of the two groups or simply the nature of the comparison group relative to the restorative justice group. If we judged the groups to be of roughly equal risk of recidivism, then we coded it as having no clear direction of bias. However, if one of the groups were judged as at higher risk of recidivism, then we coded it as favoring the less at-risk group.

The analysis of effect sizes by design type produced counterintuitive results. Across the 19 randomized designs, the overall mean effect size was reduced to a small effect (0.11) that was not statistically significant. The 95 percent confidence interval ranged from roughly zero (-0.06) to a moderately positive effect (0.27). We interpret this to be weak evidence favoring the effectiveness of restorative justice programs. Stated differently, this finding is promising, but inconclusive. The counterintuitive aspect of this analysis was that the high quality quasi-experiments had a much larger mean effect size (0.34) than the low quality quasi-experiments. There is no obvious explanation for this other than it likely reflects other differences between these studies. The findings regarding the bias direction are more consistent with our expectations. Studies with baseline group differences favoring the restorative justice condition had the largest mean effect (0.37), whereas those that were judged to favor the control condition had a negative effect (-0.23). The mean effect size for the set of studies with no clear baseline bias was roughly equal to the overall mean effect size (0.21). Not surprisingly, these differences were statistically significant ($Q_{Between} = 8.12, df = 2, p = .02$).

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We also examined several general features of the programs that cut across the specific program types. These are shown in table 10.6. We did not identify any meaningful moderators of the overall effects at this level. The moderators examined were program sponsor, location of program, staff type, and youth risk level. For example, the program sponsor examined whether the program sponsor was a researcher (i.e., a demonstration project), an independent program, or a public program either in a juvenile justice setting or a non-juvenile justice setting. The location of the program was coded as being based in the community, juvenile justice system, school, or unknown (i.e., we could not tell). The program staff were mostly a combination or mixture of different personnel (e.g. criminal justice personnel and counselors). The youth risk level in these programs ranged from general population youth, at-risk youth, youth with minor police contact, but no offense record, to adjudicated delinquent youth. No clear pattern of differential effects emerged across these moderator categories. Although the mean effect sizes varied somewhat across the variables within these categories, none of the differences were statistically significant. The only clearly distinct variables with a nontrivial frequency across studies were criminal justice personnel and mediators or volunteer mediators.

6.3.2 Delinquency effects by restorative justice programs type

Tables 10.7 and 10.8 present the results for the meta-analyses of the delinquency outcomes by various restorative justice program types. The majority of restorative justice programs identified in the review included victim-offender conferencing, a combination of multiple restorative justice programs, restitution, teen court, and family group conferencing. The individual impacts of these programs on delinquency remain consistent with the overall pattern of evidence, yet there are a few notable findings that will be highlighted below.

Victim-offender conferencing

Victim-offender conferencing included several similar programs, such as victim-offender mediation, victim-offender dialogue, victim-offender reconciliation, and restorative justice conferencing. These programs all included a face-to-face meeting guided by a third-party mediator between a victim and an offender with the possible inclusion of additional support persons for either party. Participation in these programs must have been voluntary. The overall goal of the mediation was to discuss the harms caused as a result of the crime or violation, and to reach an agreement between the two parties in order to make things right. Agreements often included an apology, community service, restitution, and/or personal services to the victim, although this list is not exhaustive. Examples of studies evaluating this program type include Roy's (1993, Study ID 881) evaluation of a Victim Offender Reconciliation Project (VORP) in Elkhart, Indiana and Evje and Cushman's (2000, Study ID 45) evaluation of six victim offender reconciliation programs in California.

There were 28 treatment-comparison contrasts across 18 unique studies that examined the effectiveness of victim-offender conferencing. Across these studies the overall mean effect size (0.26) was statistically significant, but highly heterogeneous. A forest plot of

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these effects is shown in figure 11.1. Unfortunately, none of these studies used a random assignment to conditions design, weakening the inference that can be drawn. The analysis of the effects by the direction of bias shows that the effect is only slightly attenuated for the “no clear direction of bias” category. These findings are encouraging, suggesting that these programs may be effective relative to more traditional juvenile justice processes. However, carefully designed randomized control trials of these programs are clearly needed.

Family group conferencing

In family group conferencing, the family or community of individuals affected by a crime are brought together to discuss the harm caused and work together to resolve and repair the harm. Generally, this includes an offender and victim in addition to their support persons (e.g. family and friends). All parties involved in the conference discuss the crime and the impact it had on them. This conference is led by a trained facilitator, which in some instances is a trained police officer. Examples of studies evaluating family group conferencing include Sherman et al.’s (1998, Study ID 1271) evaluation on the Canberra Reintegrative Shaming Experiments (RISE), McCold and Wachtel’s (1998, Study ID 661) Bethlehem Pennsylvania police family group conferencing project, and McGarrell and Hipple’s (2007, Study ID 682) evaluation of family group conferencing in Indianapolis.

There were eight treatment-comparison contrasts across six unique studies that examined the effectiveness of family group conferencing. The overall mean effect size was (0.20), but was not statistically significant. Five of these eight evaluations used a random assignment design. A forest plot for these effects is shown in figure 11.2. Unfortunately, the mean effect size for these high-quality designs was small (0.06), statistically non-significant, and of questionable practical significance. The 95 percent confidence interval ranged from a meaningfully negative effect (–0.31) to a meaningfully positive effect (0.44). The mean effect size for the quasi-experimental designs was also not statistically significant, but presented a large practical effect (0.42). Thus, while the results favor these programs relative to more traditional approaches (in that the pattern of evidence is positive), the evidence is equivocal at best with some studies showing positive (and significant) effects and others the opposite.

Multiple restorative justice programs

This category of programs includes programs that provide a combination of restorative justice programs or practices, including programs that provide both victim-offender conferencing and community justice boards, arbitration boards and restitution, or school-based programs that offer a number of restorative justice practices. An example of a study evaluating this type of program includes DeAntonio’s (2015, Study ID 258) evaluation of restorative practices in public schools. Also included in this category are programs that did not fit into the category of generic restorative justice program options previously established. Examples of studies evaluating an “other” program include Geudens’s (1998, Study ID 1137) evaluation of community service as a restitutive judicial sanction and Do’s (2006, Study ID 280) evaluation of a victim awareness class.

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There were 16 treatment-comparison contrasts across nine unique studies that examined the effectiveness of these programs. The overall mean effect size was moderate (0.31) and statistically significant with a 95 percent confidence interval ranging from 0.17 to 0.45. A forest plot for these program is shown in figure 11.3. Three of these evaluations used a random assignment design. The effect for these three was lower and not statistically significant (0.14), although still a meaningful positive effect. The effect for quasi-experiments was large (0.36). The mean for effects with no clear bias favoring either condition was also statistically significant, although of a slightly more modest size (0.26). Thus, this mixed category of programs shows clear promise, but additional randomized controlled trials are needed to more clearly establish effectiveness and inform the classification of other restorative programs.

Restitution

Restitution programs require juveniles to provide restitution to the victim, conduct community service, or provide other personal services to the victim. These programs may be used as a form of diversion, either pre-court or from the traditional court system, or may be juvenile justice based. Examples of studies evaluating this program type include Shichor and Binder's (1982, Study ID 978) evaluation of the Community Restitution Project (CRP) in Orange County, California and M. J. Wilson's (1982, Study ID 1184) evaluation of the Juvenile Restitution Program (JRP) in Ventura County, California.

There were 12 treatment-comparison contrasts across six unique studies that examined the effectiveness of restitution programs. The overall mean effect size was small (0.14) and not statistically significant. The effect for the seven randomized studies was virtually zero (0.03), whereas the effect for quasi-experimental studies was moderate (0.26). The effect for studies with no clear bias in the baseline differences was also small (0.10) and not statistically significant. A forest plot of these effects is shown in figure 11.4. This figure suggests that restitution is unlikely to be effective by itself. Furthermore, most of the studies on the effectiveness of restitution are 10 to 20 years old, potentially reducing the relevancy of this evidence within the current juvenile justice context.

Teen court

Teen courts involve teens in the judicial decision-making process to address the wrongdoing of other juveniles. These programs include elements of restorative justice, including holding juveniles accountable for their actions and coming to an agreement to make things right. Teen courts are often juvenile justice diversion programs. Example studies evaluating teen courts include Stickle, Connell, Wilson, and Gottfredson's (2008, Study ID 1013) evaluation of teen courts in Maryland and Butts, Buck, and Coggeshall's (2002, Study ID 150) evaluation of teen courts in Alaska, Arizona, Maryland, and Missouri.

There were 11 treatment-comparison contrasts across nine unique studies that examined the effectiveness of teen courts. The overall mean effect size was small (0.16) and not statistically significant. Two random assignment studies had a mean effect that was

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small and negative, whereas the quasi-experiments had a moderately positive effect. A forest plot of these effects is shown in figure 11.5. While there are several programs that show promisingly large positive effects, the overall pattern is equivocal and does not allow for any strong conclusions regarding the effects of these programs.

Arbitration and mediation programs

An arbitration hearing is often used as a form of diversion. This may take place in a court-like setting and involve the youth sitting before an arbitrator, answering questions about the crime, and in some instances, hearing the side of the victim. A number of possible outcomes may be reached by the arbitrator, including community service work, counseling, restitution, or a combination of these. The case will be closed once the youth fulfills his or her obligation. An example of an arbitration program includes Blew and Rosenblum's (1979, Study ID 97) evaluation of a Community Arbitration Project (CAP).

Programs may also incorporate mediation in a variety of contexts, for example using mediation in juvenile courts and peer mediation. A court mediation program takes place in the juvenile justice system, and may be used as an alternative to formal proceedings. The mediation provides an opportunity for all involved parties in the case to come together and resolve the conflict with the help of a third-party mediator. An example of court mediation includes Stone, Helms, and Stone, Helms, and Edgeworth's (1998, Study ID 1267) evaluation of Cobb County's juvenile court mediation program in Georgia. Peer mediation involves trained students acting as mediators to address conflicts between students. Peer mediation often takes place in schools and involves bringing both parties of a dispute together to address and resolve the conflict. An example of peer mediation includes Cigainero's (2009, Study ID 187) evaluation of the effectiveness of peer mediation in middle schools.

There were six treatment-comparison contrasts across four unique studies examining the effectiveness of arbitration and mediation programs. The overall mean effect size was small (0.11) and not statistically significant. A single random assignment study had a moderately sized effect (0.26), although this was also not statistically significant. Thus, the effectiveness of this program group is uncertain given the current available evidence. A forest plot of these effects is shown in figure 11.6.

Cautioning and diversion programs

Cautioning and diversion programs are non-mainstream restorative justice programs, are diversionary in nature, and also incorporate restorative justice elements. Cautioning and non-traditional restorative justice diversion programs often include some restorative justice element (e.g., verbal or written apology, face-to-face meeting, family involvement, restitution, etc.), providing an alternative to formal juvenile court processing, including attending various treatment services. In the case of cautioning programs, these typically involve a formal caution of a juvenile by the police, with the youth being diverted from the formal juvenile justice system. An example of a study evaluating this type of program includes Kraus's (1981, Study ID 554) evaluation of police cautioning of

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juvenile offenders. An example of a study including a diversion program includes Kelley, Kennedy, and Homant's (2003, Study ID 532) evaluation of an individualized treatment program for adolescent shoplifters.

There were four treatment-comparison contrasts across four unique studies examining the effectiveness of cautioning and diversion programs. The overall mean effect size was large (0.62) and statistically significant. One of these studies used random assignment and three others used a quasi-experimental design. The results for both design types were roughly similar. A forest plot of these effects is shown in figure 11.7. The evidence suggests that cautioning and diversion are effective alternatives to more formal processing of youth engaged in delinquent behavior. It is worth noting, however, that these programs are almost always restricted to low-risk first time youthful offenders.

Impact panels and reparative board programs

Neighborhood impact panels and reparative boards (also referred to as community reparative boards, community accountability boards, community panels, victim impact panels, neighborhood boards, and youth panels) are typically made up of a small group of citizen volunteers who conduct face-to-face meetings with an offender who may be ordered by the court to participate in the program. The boards will develop an agreement of imposed sanctions the offender must meet to make reparations for their crime. An example of a study evaluating this type of program includes Bouffard, Cooper, and Bergseth's (2016, Study ID 1236) evaluation of a community panel.

There were three treatment-comparison contrasts across three unique studies examining the effectiveness of these program types. The overall mean effect size was small (0.13) and not statistically significant. All three studies were quasi-experimental and the single study with no clear baseline bias favoring the treatment group had a non-significant negative effect. A forest plot of these effect sizes is shown in figure 11.8. It is not possible to draw any firm conclusions regarding these programs without additional higher quality studies.

Circle sentencing programs

Circle sentencing programs (including peace circles and sentencing circles) include a holistic approach to addressing the harm caused by a crime or other violations by bringing together the victim, offender, family, friends and members of the larger community, and are guided by a facilitator or mediator. All involved participants meet in a circle and discuss the crime and the harm caused to them as a result. Members of the circle can provide solutions to address the crime. Ultimately, an agreement or sentencing plan should be reached by the entire circle. Participants of the circle, including family and community members, can also make commitments to assist the offender and/or victim in moving forward. These circles may also be used to address conflicts or violations that arise in school settings. In these instances, students participate in a circle alongside other affected parties (e.g. teachers, school staff, family), with the goal of addressing the harm caused and reaching an agreement on how best to move forward.

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An example of a study evaluating a circle sentencing program includes Brown-Kersey's (2011, Study ID 138) evaluation of a peace circle program.

There were two treatment-comparison contrasts across two unique studies examining the effectiveness of sentencing circles. The overall mean effect size was moderate to small (0.18) and statistically significant. However, with only two quasi-experimental studies, no strong conclusions can be drawn from this finding. Furthermore, of the two studies, one (Norris, 2008) observed an effect of zero, although the sample size for that study resulted in a small influence on the overall mean effect. A forest plot of these effects is shown in figure 11.9.

6.3.3 Restorative justice program elements

Another aim of this study was to explore the relative effect of restorative justice program elements on delinquency outcomes. That is, rather than simply examine the effects relative to the program types, we focused on the presence or absence of specific program activities. We started with a list of program elements that we anticipated being part of the programs we were reviewing, such as restitution, presence of a mediator, and a face-to-face meeting. We added to this list as we coded studies and identified additional program elements. An element was only coded as a component of a program if it was explicitly stated as being part of the program or if it was a fundamental feature of the program type. For example, all Victim-Offender Mediation programs were coded as having a face-to-face element even if that was not explicitly stated given that such a program cannot occur otherwise.

We assessed the relative effect of these elements in a meta-regression model predicting the delinquency outcome effect size. We collapsed several of the categories given the high degree of confounding between them and the conceptual similarity of the elements. Specifically, community service and restitution were combined as was having a face-to-face meeting with the use of a facilitator or mediator.

The results of this analysis are presented in table 10.10. The results are disappointing. The only restorative justice program element that had an additive effect above and beyond the other program elements was a pre-conference or a pre-mediation meeting. This program element involves the mediator meeting with both the victim and the offender separately before the actual joint mediation occurs. Generally, the mediator will inform participants of what to expect in the face-to-face mediation, hear about the crime and the impact it had on each participant, and encourage both individuals to think about or discuss what is needed to make things right. Mediators can also remind participants of the voluntary nature of the mediation and field any concerns or questions they may have. Pre-conference/mediation was associated with a large increase in the effectiveness of the programs. That is, programs that included a pre-conference or pre-mediation meeting were more effective than those that did not. We also examined each component separately as a sensitivity analysis on this more complex model and the results were roughly consistent.

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6.3.4 Youth participant non-delinquency outcomes

An additional objective of this review was to examine the effect of restorative justice programs on non-delinquency outcomes. These outcomes for youth participants are shown in table 10.11. Across the coded studies we identified nine general non-delinquency constructs: attitudes about delinquency, perception of fairness, satisfaction with the program, completion of restitution, attitudes about interpersonal relationships, measures of emotional well-being (such as depression and anxiety), school attendance, completion of reparation of harm, and completion of community service. Forest plots of the results for each of these outcomes are shown in figures 11.10 through 11.18. Given the small number of available effect sizes, the analyses were collapsed across program type.

Overall, the results across these outcomes are positive in favor of restorative justice programs. Consistent with the theoretical framework for restorative justice, the youth participants in these programs had a great perception about the fairness of the outcome. The overall effect for this outcome is moderate in size (0.26) and not statistically significant overall, but importantly is statistically significant for the random assignment studies. We would also theoretically expect youth to be more satisfied with a restorative justice program relative to more traditional juvenile justice system processing and the results are consistent with that expectation, although the moderately large overall effect (0.29) is not statistically significant.

Attitudes about delinquency and attitudes regarding interpersonal issues are also in the expected direction, with moderate sized effects in both cases (0.30 and 0.40, respectively), although neither is statistically significant. Outcomes related to emotional well-being, however, did not show any consistent improvement for the restorative justice group relative to the comparison group.

The outcomes of restitution, community service, and reparation of harms all measured completion of these activities for youth in the restorative justice condition relative to the comparison condition. In these studies, youth in the comparison condition may also have been assigned one of these activities, although typically only for a subset of the youth, and the comparison condition did not have the same mechanisms in place to monitor completion. As such, it is not surprising that these studies produced large positive effect sizes for measures assessing the completion of these activities.

6.3.5 Victim participant outcomes

An important aspect of restorative justice programs is the involvement of victims throughout the process. Four studies (McCold & Wachtel, 1998; McGarrell & Hipple, 2007; Sherman et al., 1998; Umbreit & Coates, 1992) reported victim participant outcomes. The Umbreit and Coates (1992) study evaluated Victim-Offender Mediation programs, while the other three studies evaluated Family Group Conferencing programs. Both the Sherman et al. (1998) and Umbreit and Coates (1992) studies reported the results of three separate evaluations, resulting in eight studies across these four publications. The studies by McCold and Wachtel (1998), McGarrell and Hipple

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(2007) and Sherman et al. (1998) used random assignment to conditions designs, whereas Umbreit and Coates (1992) used a quasi-experimental design.

As with the youth participant non-delinquency outcomes, the results for the victim participation outcomes were mostly positive, showing benefits of these programs for victims (see table 10.12). Victims have improved perceptions of fairness (0.64), greater satisfaction (0.67), improved attitudes toward the juvenile offender (0.54), are more willing provide forgiveness to the offender (0.66), and are more likely to feel that the outcome was just than victims of youth processed by the juvenile justice system in a more traditional fashion (0.64). These outcomes are all consistent with the theory and goals of restorative justice. Some noteworthy effects for victim participants relative to their traditional counterparts were seen for whether victims felt their opinions and views were considered (1.16) and whether victims felt that the youth was held accountable (0.79). The effect for perceptions of procedural justice, while positive (0.24), was not statistically significant, suggesting, albeit weakly, that these programs may not be viewed as more procedurally just. Victims did not report improved outcomes for measures of emotional well-being (-0.02), a sense of safety or fear (-0.19), or a sense of trust in the system (0.01).

6.4 Publication bias

Publication selection bias and outcome selection bias are a threat to the validity of a meta-analysis or any other method of systematically reviewing literature. It has been well established that statistically significant effects are more likely to be included in a report and more likely to be published by peer reviewed outlets such as academic journals (Rothstein, Sutton, & Borenstein, 2006). There are several methods for assessing publication selection bias, but all have limitations. We used three approaches in this study: the trim-and-fill method (Duval & Tweedie, 2000), a visual examination of the funnel plot (Sterne & Egger, 2001), and a comparison of the mean effect size for published versus unpublished studies (Lipsey & D. B. Wilson, 2001). These analyses were performed on the delinquency outcomes only.

The trim-and-fill method, as implemented in Stata, did not identify any asymmetry that would suggest publication selection bias, trimming and filling zero effect sizes (see table 10.13). The trim-and-fill method, however, performs poorly when heterogeneity is high, as is the case with the current review. We also examined the funnel plot which is a scatter plot of the standard errors of the effect sizes against the effect sizes themselves. This figure (11.30) is nearly symmetrical and consistent with the trim-and-fill method in not identifying any publication selection bias. In contrast, a comparison of the mean effect size for effects based on studies published in journals was meaningfully higher than the mean effect size for those from other publication forms, including books, theses, and unpublished technical reports (0.34 versus 0.19, respectively, see table 10.13). This latter finding suggests the possibility of some degree of publication selection bias in our findings and raises another source of caution that must be taken into consideration when interpreting the results, along with concerns raised from methodological weaknesses, such as differences in groups at baseline.

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This review identified a diversity of restorative justice programs and programs incorporating restorative justice principles and practices. The majority of these programs involved some form of a meeting between the youth who committed the delinquent act and a victim, victim surrogate, or other community representative. Other programs included teen courts, restitution, cautioning/diversion, and other programs incorporating some element consistent with restorative justice principles.

Overall, the average results across these studies evaluating restorative justice programs and practices showed a moderate reduction in future delinquent behavior relative to more traditional juvenile justice processing. There were also improvements in several non-delinquency outcomes for youth involved in these programs, as well as positive outcomes for victims. However, results were smaller for the more credible random assignment studies, raising concerns about the robustness of this overall result. The findings regarding specific restorative justice programs were mixed and are discussed below.

7.1 Program type effects on delinquency

The largest category of programs evaluated in this review included some form of a conference, including victim-offender conferencing and family group conferencing. Overall, victim-offender conferencing had a positive effect on delinquency, but this average effect was based solely on quasi-experimental designs, which are methodologically weaker studies compared to randomized studies. The subset of studies for which there was no clear bias in the baseline differences had an overall effect that was somewhat smaller, but still of a meaningful size and statistically significant. However, without any random assignment studies, selection bias concerns remain, raising the risk of bias for this finding. Similarly, family group conferencing led to a positive overall effect, but this effect was substantially attenuated when restricted to the randomized studies, raising concerns about the effectiveness of these programs. The 95 percent confidence interval for the random assignment studies, however, includes values of clear positive and practical significance. As such, we cannot rule out the possibility of beneficial effects, but we also cannot rule out the possibility that these program are ineffective. Thus, the evidence from these conferencing programs is promising, but inconclusive.

Although there are important distinctions between impact panels, community reparative boards, peace circles, and sentencing circles, each involves an interaction between a youthful offender and a victim or victim surrogate, potentially in the form of a community member. The effect on delinquency for these types of programs was small

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and not statistically significant. All of the evidence for these program types was based on studies using a quasi-experimental design. Although the small number of studies prevents drawing any firm conclusions regarding these programs, the pattern of evidence is less encouraging than it is for the aforementioned conferencing programs.

Arbitration and mediation programs are alternatives to traditional court sentencing, focusing more on a discussion about the crime or other wrong-doing and arriving at an agreement regarding the consequences or actions to be taken by the youth. The overall effect for these programs was positive, but small and non-significant. However, a single random assignment study observed a moderate effect size of meaningful magnitude. The larger number of quasi-experimental studies provide a more pessimistic assessment of these programs. Thus, the current effectiveness of arbitration and mediation programs remains uncertain and this program category does not seem particularly promising.

Restitution and teen courts had small positive overall effects on delinquency, but each had random assignment studies (seven and two, respectively) that failed to find beneficial effects of these programs. While we cannot rule out the possibility that these programs are effective, the current evidence is not encouraging.

The only category of programs to demonstrate the largest overall mean effect was that of cautioning and diversion. However, this effect was based on a small number of studies. Still, this finding suggests that cautioning schemes and diversion programs are effective for low-risk and first-time youthful offenders. These programs, however, do not fully reflect the principles of restorative justice as they do not involve any reparation of harm or victim and offender interaction. However, these programs do reintegrate the youthful offender back into their community rather than send them to the juvenile justice system for formal processing. Furthermore, many restorative justice programs involve a form of diversion from more formal processing. These findings suggest that at least for low-risk youth, cautioning and diversion can be beneficial.

A goal of this synthesis was to identify program elements and practices within these restorative justice programs that moderate effectiveness, that is, that are associated with greater or weaker outcomes. We therefore computed variables to reflect the presence or absence of program features, such as a face-to-face meeting. A meta-regression model assessed the additive effect of each of these elements above the effect of the other elements, controlling for whether the study used random assignment. Unfortunately, these analyses were mostly null with the exception of a statistically significant finding for the effect of pre-conference and pre-mediation meetings. These findings suggest that conferencing and mediation programs are more effective if they have a preparation meeting with the youth and the victim prior to the actual joint mediation to establish expectations, discuss the impact of the crime, and explain how the conference or mediation will work. This finding is intuitively appealing; having a pre-mediation should in theory improve the outcome of the conference or mediation if both the youth and victim (and possibly other involved participants, such as family members) clearly understand how the meeting will function, discuss in private the impact of the crime, and have an opportunity to voice any concerns prior to the mediation.

7.2 Non-Delinquency Outcomes Effects

The effect of participation in restorative justice programs was also assessed for a number of non-delinquent outcomes. The non-delinquent outcomes concerned both youthful participants and victims who participated in restorative justice programs compared to youthful offenders and victims of these offenders processed by the juvenile justice system. Promising findings were seen for many of the non-delinquency findings. For example, youth in the restorative justice conditions had less supportive attitudes toward delinquent behaviors and were more satisfied with the program than youth in the comparison conditions. They also perceived the outcome of their case to be fairer relative to youth in the comparison conditions. This finding regarding fairness is the most credible finding across the non-delinquency outcomes for youth as it was based on nine studies, eight of which used a random assignment design. This finding is also highly consistent with the theoretical orientation of restorative justice programs. However, the findings for other non-delinquency outcomes, while positive and encouraging, should be viewed with caution, as they were either not statistically significant or were based on findings from quasi-experimental designs.

Similarly, the evidence suggests victims also have improved perceptions of fairness, greater satisfaction, and improved attitudes toward the juvenile participant. Additionally, for victims that participate in restorative justice programs, the findings also indicate victims are more willing to provide forgiveness to the juvenile and are more likely to feel that the overall outcome of the program was just.

However, the findings suggest that participation in restorative justice programming is not associated with improvements in outcomes related to emotional well-being for youth or for victims. For example, victims are no less fearful than victims of offenders processed through the traditional juvenile justice system.

7.3 Quality of the evidence

The strength of the conclusions that can be drawn from this review flow directly from the underlying strength of the evidence. On the positive side, roughly 20 percent of the studies included in this synthesis were randomized controlled trials that randomly assigned youth to the restorative justice and control condition. These studies provide the strongest basis for drawing a causal inference regarding effectiveness. Unfortunately, the findings in general from the random assignment studies were less positive, reducing confidence in the general effectiveness of restorative justice programs.

In coding studies, we assessed the descriptions of the restorative justice and comparison conditions at baseline and made an assessment as to whether the two groups appeared to be roughly comparable in their overall risk for future delinquency or whether baseline differences favored one condition over the other. When there was evidence to suggest selection bias, it generally favored the restorative justice program and only in a few instances favored the comparison condition. Thus, many of the studies included in the analysis are at risk of bias favoring positive effects. As with random assignment, studies assessed to be comparable at baseline generally had smaller effects than studies that

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were biased in favor of the treatment condition. This also raises concerns regarding the robustness of the overall findings to the methodological weaknesses of the research base.

Taken together, the methodological concerns identified in our coding of these studies suggests that positive and statistically significant findings should not be interpreted as strong evidence of program effectiveness. Rather, the evidence is promising and suggests that continued use of these programs and practices is warranted, but that more high quality, preferably randomized controlled trials that have been registered with a trial registry, need to be conducted before stronger inferences can be drawn.

7.4 Implications for practice and policy

As restorative justice policies and programs continue to expand across the United States, the results of rigorous research evaluations will be of increasing importance. Overall, the results of this meta-analysis were promising, showing a moderate reduction in future delinquent behavior for restorative justice programs and practices. However, given the potential methodological challenges previously discussed, these findings are by no means conclusive and leave room for empirical growth within the restorative justice field. Several findings do, however, stand out and have potential practice and policy implications for the field of restorative justice.

In particular, programs that included the element of pre-conference or pre-mediation meetings had better outcomes in terms of delinquent behavior than programs that did not include this element. This finding highlights the importance of the preparation phase within restorative justice programs, notably the role that greater participant time spent on preparation may have on a successful restorative justice process. Umbreit and Armour (2010) highlight the importance of the preparation stage of Victim-Offender Mediation in particular, noting: “Problems that may occur later in the mediation session often originate during this phase of the process and are the result of incomplete participation” (p. 124).

The finding that restorative justice programs with a pre-mediation or pre-conference meeting had better outcomes in terms of delinquency is important for both current programs and future research. However, this lone finding related to the program elements also reveals the difficulty in comprehensively evaluating program elements based on the program descriptions provided in studies. Of particular importance is the possibility that certain programs may include preparation as an element, but do not necessarily disclose this within their program descriptions. Thorough descriptions of all the elements of an evaluated program are critical for future restorative justice research.

Another important implication of this meta-analysis relates to non-delinquency outcomes for both youth participants and victims. Youth participants involved in restorative justice programs indicated having greater perceptions of fairness and were more satisfied with the restorative justice program compared to youth not included in these programs. Victims indicated improved perceptions of fairness, greater satisfaction, improved attitudes toward the juvenile offender, and a greater willingness to provide forgiveness. Victims also noted they felt that the outcome was just. These findings

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provide important support for many of the essential principles of restorative justice, primarily the centrality of the victim throughout the process, as well as a greater sense of satisfaction and fairness compared to traditional approaches. These findings also lend credence to restorative justice as a mechanism capable of achieving goals of the juvenile justice system, primarily prosocial youth development, and the restoration of victims.

As the need for alternative measures arise in specific youth contexts, such as that of the school-to-prison pipeline, school-based restorative justice programs, often in the form of sentencing circles, have gained increased attention and support over the past several years to combat this trend (Gonzalez, 2012). Our meta-analysis, however, did not uncover meaningful findings for these programs. Our study uncovered only six evaluations across four distinct studies of school-based programs that met our eligibility criteria. Additional research using rigorous methodological evaluations on school-based restorative justice programs is therefore warranted, especially as these programs continue to gain leverage.

Another emerging context concerning a range of youth (e.g., at-risk, pre-delinquent, delinquent, etc.) is youth-police relations. This is another area where restorative justice programs, specifically police-led cautioning and diversion programs, may have some impact. Additional findings from our meta-analysis showed cautioning and diversion programs to produce the largest effect in reducing future delinquency compared to all other restorative justice programs. However, similar to the findings for school-based restorative justice programs, only a few studies were included in this overall finding. This finding should encourage additional high-quality research on this topic.

7.5 Implications for research

Additional randomized controlled trials of restorative justice programs and programs incorporating restorative justice practices stands as the clearest implication for research. No single program type had a sufficient number of high quality studies to be confident in either its effectiveness or ineffectiveness, except for a few non-delinquency and victim outcomes. Also, moderator analyses were constrained by the lack of adequate descriptive information regarding the nature of the interventions and samples and by a lack of subgroup analysis on common sample characteristics, such as sex, race/ethnicity, and risk-level. Improved descriptive validity in written reports and increased frequency of reporting of standard subgroup analyses will facilitate moderator analyses in future meta-analysis. Furthermore, the possibility of publication selection bias implies a need for future studies to register with a trials registry, such as <http://clinicaltrials.gov>, prior to conducting their study. This helps mitigate publication selection bias by providing a mechanism to identify studies independently from their outcomes and also to know what outcomes should be reported, reducing the problem of outcome reporting bias.

7.6 Conclusion

This systematic review and meta-analysis differed from the relatively recent reviews by Strang et al. (2013) and Livingstone et al. (2013) by including quasi-experimental designs.

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These two prior reviews were restricted to randomized controlled trials and conferencing type programs. The review by Strang et al. (2013) concluded that these programs are effective, although the effects are small. In contrast, Livingstone et al. (2013) concluded that there was not enough high quality evidence to conclude that these program were effective. Our results split the difference. The evidence from the randomized controlled trials was insufficient to conclude that these programs are either effective or ineffective, but the pattern of evidence across all of the studies, including the quasi-experimental designs, is generally positive and suggests that these programs are promising as a whole. Furthermore, our findings also support the positive effect of restorative justice programs such as face-to-face conferencing on victim satisfaction.

It is also worth noting that restorative justice programs for juvenile's exist in a different ecosystem of referral and support services for youth arrested for a crime compared to adults processed through the adult criminal justice system. The more rehabilitative orientation of the juvenile system and greater availability of services relative to the adult system, may reduce the contrast between restorative justice programs and the comparison conditions. This would reduce effect sizes and make it more difficult for studies to identify positive effects, particularly without large sample sizes.

However, the evidence regarding the effectiveness of these programs in reducing continued delinquent behavior is promising, but given methodological weaknesses of the literature, is not at a level that would allow for a strong positive conclusion. Simply stated, the results are promising but not conclusive. Similarly, non-delinquency outcomes for youth are promising but inconsistent, with the exception of the youth's perceptions of fairness, which was greater for the restorative justice programs. There was also strong evidence for the effectiveness of these programs for victims. Victim participants appear to experience improved outcomes related to perceptions of fairness and satisfaction. Additional high-quality research on these programs is clearly warranted given these promising, but uncertain findings.

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10 Tables

10 Tables

Table 10.1: Study Frequencies by Country, Publication Decade, Program Sponsor, and Research Design

Variable	Frequency	Percent
Country of study (n=60)		
United States	46	77
Australia	8	13
United Kingdom	3	5
European Union	2	3
Canada	1	2
Publication Decade (n=60)		
1970s	2	3
1980s	7	12
1990s	12	20
2000s	26	43
2010s	13	22
Program Sponsor (n=60)		
Public program, juvenile justice	30	50
Public program, non-juvenile justice	13	22
Mixed /cannot tell	10	17
Researchers	4	7
Independent program	3	5
Number of Substudies within Studies		
1	52	87
2	1	2
3	3	5
4	2	3
6	1	2
7	1	2
Total	60	
Research Design (n=84)		
Quasi-experiment with no controls	35	42
Quasi-experiment with matching	23	27
Random without matching	14	17
Quasi-experiment cohort design	7	8
Random with matching	3	4
Quasi-experiment with statistical controls	2	2

Note: We identified 60 unique studies. Generally, this was a single publication, but may have been multiple publications (see section 9 for a listing and references within each study identifier). A study may have reported on the results of multiple substudies, such as programs in different jurisdictions. There were 84 unique substudies.

10 Tables

Table 10.2: Restorative Justice and Comparison Condition Sample Sizes, Sex Distribution, Levels of Delinquency, and Program Staff

Variable	RJ Condition		Comparison Condition	
	Frequency	Percent	Frequency	Percent
Sample Sizes				
10–50	12	13	14	16
51–100	25	27	17	20
101–200	25	27	23	26
201–500	18	20	18	21
501–1,000	8	9	8	9
1,001–2,000	1	1	1	1
2,001–10,000	1	1	5	6
>10,000	1	1	1	1
Sex distribution				
100% Male	3	3	4	5
90–99% Male	9	10	8	9
75–89% Male	26	29	17	20
26–75% Male	36	40	31	36
0% Male	1	1	1	1
Unknown	16	18	26	30
Level of delinquency				
Non-delinquents	6	7	6	7
CJ Contact/Non-adjud. delinquents	47	52	17	20
Adjudicated delinquents	37	40	63	72
Institutionalized delinquents	1	1	1	1
Program staff				
Other/mixed	42	46	19	22
Mediator/volunteer mediator	31	34	0	0
Criminal/juvenile justice personnel	18	20	68	78
Location of program				
Community-based	56	62	6	7
Juvenile justice based	23	25	65	75
School-based	6	7	6	7
Cannot tell	6	7	10	11

Note: There were 91 treatment conditions and 87 control conditions from the 84 unique studies or substudies.

10 Tables

Table 10.3: Restorative Justice Program Type and Restorative Justice Elements for RJ Condition

Variable	Frequency	Percent
Program type		
Victim-offender conferencing	28	31
Other, multiple programs	17	19
Restitution	12	13
Teen/youth court	11	12
Family group conferencing	8	9
Arbitration/mediation	6	7
Cautioning/diversion	4	4
Impact panels/reparative boards	3	3
Circle peace/sentencing circle	2	2
Program elements		
Facilitator/mediator	65	71
Face-to-face meeting	64	70
Restitution	54	59
Victim present	53	58
Restorative agreement	50	55
Community service	48	53
Family involved/present	45	49
Community involvement	26	29
Apology (written/verbal)	25	27
Pre-conference/pre-mediation meeting	23	25
Follow-up compliance	22	24
Personal services to victims	8	9
Indirect mediation/shuttle mediation	6	7
Victim empathy groups or classes	2	2
Use of a script	1	1

Note: There are 94 treatment conditions from the 84 unique studies or substudies.

10 Tables

Table 10.4: Non-restorative justice program elements for both the treatment and comparison conditions

Variable	RJ Condition		Comparison Condition	
	Frequency	Percent	Frequency	Percent
Other program elements				
Court	2	2	46	53
Probation, regular	11	12	26	30
Diversion (pre-court)	57	63	18	21
Community service	45	49	14	16
Juvenile justice system inst.	3	3	10	11
Diversion (court)	22	24	7	8
Treatment of any kind	12	13	7	8
Warning and release	1	1	5	6
Counseling	18	20	5	6
Substance abuse treatment	10	11	4	5
Remedial education	3	3	4	5
Job counseling/job readiness/etc	11	12	3	3
Emotional control training	7	8	3	3
Referral services	7	8	3	3
Surveillance	3	3	3	3
Suspension	1	1	3	3
Tutoring	5	5	2	2
Group therapy	2	2	2	2
Non-juvenile justice institution	2	2	2	2
Recreational activities	2	2	2	2
Probation, intensive	1	1	2	2
Teen court	11	12	1	1
Peer mediation	3	3	0	0
Mental health treatment	2	2	0	0
Cognitive/decision-making skills	1	1	0	0

Note: There are 92 treatment conditions and 87 control conditions from the 84 unique studies or substudies.

Table 10.5: Overall Mean Effect Size and Related Statistics by Method Features

Program Type	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
All studies	0.23	0.16	0.31	0.038	6.15	0.00	90 ^a	438.57	0.00
Design type								5.70	.06
Random assignment	0.11	-0.06	0.27	0.085	1.24	0.21	19		
High quality quasi-experiment	0.34	0.22	0.46	0.061	5.54	0.00	35		
Low quality quasi-experiment	0.19	0.08	0.31	0.060	3.24	0.00	36		
Bias Direction								8.12	.02
Favors RJ condition	0.37	0.22	0.52	0.077	4.88	0.00	23		
No clear direction	0.21	0.12	0.29	0.043	4.74	0.00	65		
Favors control condition	-0.23	-0.67	0.21	0.223	-1.04	0.30	2		

Note: All models estimated as random effects models using the method-of-moments estimate for τ^2 . Effects are coded such that positive values reflect positive effects, that is, less delinquency.

^a One study (Do, 2006) did not report a delinquency, resulting in 90 treatment-comparisons for these analyses.

10 Tables

Table 10.6: Overall Mean Effect Size and Related Statistics by General Program Features

Program Type	Mean g	95% CI		SE	z	p	k	Q	p
		Lower	Upper						
Program Sponsor								3.25	.52
Researchers	0.11	-0.24	0.45	0.176	0.62	0.54	4		
Mixed/cannot tell	0.23	0.06	0.41	0.090	2.60	0.01	15		
Independent program	0.29	-0.03	0.61	0.164	1.77	0.08	6		
Public program, juvenile justice	0.34	0.19	0.50	0.079	4.31	0.00	23		
Public program, non-juvenile justice	0.18	0.07	0.29	0.056	3.27	0.00	42		
Location of Program								2.40	.49
Community-based	0.27	0.16	0.37	0.051	5.18	0.00	56		
Juvenile justice based	0.13	-0.02	0.29	0.078	1.72	0.09	22		
School-based	0.23	-0.05	0.52	0.146	1.61	0.11	6		
Cannot tell	0.32	0.04	0.59	0.138	2.28	0.02	6		
Staff Type								1.82	.40
Criminal justice personnel	0.30	0.14	0.45	0.081	3.67	0.00	18		
Other/mixed	0.18	0.07	0.29	0.056	3.16	0.00	41		
Mediator/volunteer mediator	0.27	0.14	0.39	0.065	4.11	0.00	31		
Youth Risk Level								1.32	.72
General youth population	0.21	-0.17	0.58	0.193	1.08	0.28	4		
General youth, at-risk	0.27	-0.17	0.71	0.222	1.22	0.22	2		
General youth, minor police contact	0.28	0.17	0.38	0.055	4.99	0.00	47		
Delinquent youth	0.18	0.06	0.30	0.061	3.00	0.00	37		

Note: All models estimated as random effects models using the method-of-moments estimate for τ^2 . Effects are coded such that positive values reflect positive effects, that is, less delinquency.

10 Tables

Table 10.7: Mean Effect Size and Related Statistics for Delinquency Outcomes by Restorative Justice Program Type (Part 1)

Program Type	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Victim-offender conferencing	0.26	0.15	0.38	0.060	4.42	0.00	28	99.39	0.00
Design type									
Random assignment									
Quasi-experiment	0.26	0.15	0.38	0.060	4.42	0.00	28	2.83	0.09
Bias Direction									
Favors RJ condition	0.39	0.19	0.58	0.100	3.86	0.00	8		
No clear direction	0.21	0.08	0.33	0.064	3.26	0.00	20		
Family group conferencing	0.20	-0.07	0.46	0.135	1.47	0.14	8	28.20	0.00
Design type								1.26	0.26
Random assignment	0.06	-0.31	0.44	0.190	0.34	0.73	5		
Quasi-experiment	0.42	-0.07	0.91	0.251	1.67	0.09	3		
Bias Direction								4.42	0.04
Favors RJ condition	0.78	0.19	1.38	0.302	2.60	0.01	2		
No clear direction	0.09	-0.16	0.35	0.130	0.71	0.48	6		
Other / multiple programs	0.31	0.17	0.45	0.071	4.36	0.00	16	42.49	0.00
Design type								2.08	0.15
Random assignment	0.14	-0.13	0.41	0.138	0.99	0.32	3		
Quasi-experiment	0.36	0.22	0.51	0.076	4.81	0.00	13		
Bias Direction								5.60	0.02
Favors RJ condition	0.78	0.37	1.19	0.209	3.72	0.00	2		
No clear direction	0.26	0.10	0.41	0.077	3.32	0.00	13		
Favors control condition	0.23	-0.23	0.69	0.235	0.96	0.34	1		

Notes: All models estimated as random effects models.

10 Tables

Table 10.8: Mean Effect Size and Related Statistics for Delinquency Outcomes by Restorative Justice Program Type (Part 2)

Program Type	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Restitution	0.14	-0.09	0.36	0.116	1.19	0.23	12	29.67	0.00
Design type								0.86	0.35
Random assignment	0.03	-0.30	0.36	0.167	0.18	0.86	7		
Quasi-experiment	0.26	-0.10	0.62	0.183	1.41	0.16	5		
Bias Direction								0.14	0.71
Favors RJ condition	0.20	-0.21	0.60	0.208	0.94	0.35	4		
No clear direction	0.10	-0.20	0.40	0.153	0.66	0.51	8		
Teen court	0.16	-0.19	0.50	0.178	0.88	0.38	11	59.97	0.00
Design type								0.50	0.48
Random assignment	-0.11	-0.96	0.73	0.430	-0.27	0.79	2		
Quasi-experiment	0.23	-0.19	0.64	0.211	1.07	0.29	9		
Bias Direction								0.11	0.74
Favors RJ condition	0.26	-0.45	0.98	0.365	0.72	0.47	3		
No clear direction	0.12	-0.31	0.56	0.221	0.55	0.58	8		
Arbitration / mediation	0.11	-0.10	0.32	0.109	0.99	0.32	6	38.62	0.00
Design type									
Random assignment	0.26	-0.31	0.82	0.291	0.89	0.37	1		
Quasi-experiment	0.08	-0.17	0.32	0.125	0.61	0.54	5		
Bias Direction								0.11	0.74
No clear direction	0.23	0.12	0.34	0.058	3.97	0.00	5		
Favors control	-0.75	-1.08	-0.42	0.169	-4.41	0.00	1		

Notes: All models estimated as random effects models.

10 Tables

Table 10.9: Mean Effect Size and Related Statistics for Delinquency Outcomes by Restorative Justice Program Type (Part 3)

Program Type	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Caution/diversion	0.62	0.43	0.81	0.098	6.35	0.00	4	7.55	0.06
Design type									
Random assignment	0.67	0.14	1.19	0.269	2.47	0.01	1		
Quasi-experiment	0.60	0.36	0.84	0.121	4.97	0.00	3		
Bias Direction									
Favors RJ condition	0.51	0.19	0.83	0.164	3.10	0.00	1		
No clear direction	0.68	0.46	0.89	0.110	6.16	0.00	3		
Impact panels	0.13	-0.42	0.68	0.283	0.46	0.65	3	8.00	0.02
Design type									
Random assignment									
Quasi-experiment	0.13	-0.42	0.68	0.283	0.46	0.65	3		
Bias Direction									
Favors RJ condition	0.48	-0.74	1.70	0.622	0.77	0.44	2		
No clear direction	-0.24	-1.90	1.42	0.845	-0.28	0.78	1		
Circle sentencing	0.18	0.01	0.36	0.089	2.06	0.04	2	0.66	0.42
Design type									
Random assignment									
Quasi-experiment	0.18	0.01	0.36	0.089	2.06	0.04	2		
Bias Direction									
Favors RJ condition	0.00	-0.46	0.47	0.238	0.02	0.98	1		
No clear direction	0.21	0.02	0.40	0.097	2.21	0.03	1		

Notes: All models estimated as random effects models.

10 Tables

Table 10.10: Meta-Regression Model Predicting Recidivism Based on RJ Components for Delinquency Outcomes

Variable	Regression Coefficient	<i>p</i>
Restorative Justice Component		
Apology (written/verbal)	-0.11	0.35
Community service/restitution	-0.10	0.43
Follow-up compliance	0.11	0.28
Face-to-face/facilitator/mediator	-0.11	0.45
Family involved/present	-0.01	0.87
Restorative agreement	-0.06	0.64
Victim present	-0.04	0.69
Pre-conference/pre-mediation meeting	0.31	0.01
Community involvement	-0.12	0.22
Other		
Random assignment design	-0.19	0.08
Constant	0.45	0.00

Notes: Models based on 90 treatment-comparison contrasts. Random effects model estimated via method-of-moments. Model statistics: $Q_{model} = 15.94$, $df = 9$, $p = .07$, $\tau^2 = 0.087$.

10 Tables

Table 10.11: Mean Effect Size and Related Statistics for Non-Delinquency Outcomes

Non-Delinquency Outcome	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Attitudes about delinquency	0.30	-0.18	0.77	0.241	1.23	0.22	12	50.30	0.00
Design type									
Random assignment	0.15	-0.34	0.63	0.248	0.60	0.55	11		
Quasi-experiment	1.33	0.05	2.61	0.651	2.04	0.04	1		
Fairness	0.26	-0.24	0.76	0.256	1.01	0.31	9	13.37	0.10
Design type									
Random assignment	0.53	0.11	0.96	0.214	2.50	0.01	8		
Quasi-experiment	-0.59	-1.12	-0.06	0.271	-2.19	0.03	1		
Satisfaction	0.29	-0.33	0.90	0.315	0.91	0.36	5	23.46	0.00
Design type								2.04	0.15
Random assignment	0.87	-0.13	1.86	0.507	1.71	0.09	2		
Quasi-experiment	-0.05	-0.81	0.71	0.388	-0.12	0.91	3		
Restitution	0.54	0.11	0.97	0.219	2.46	0.01	6	7.60	0.18
Design type									
Random assignment	0.39	0.09	0.68	0.150	2.57	0.01	2		
Quasi-experiment	1.25	0.38	2.12	0.445	2.81	0.00	4		
Interpersonal attitudes	0.40	-0.16	0.97	0.288	1.39	0.16	4	8.17	0.04
Emotional	0.06	-0.04	0.16	0.052	1.13	0.26	3	1.86	0.39
Attendance	0.40	0.03	0.78	0.192	2.11	0.04	3	0.25	0.88
Reparation	0.99	0.56	1.42	0.220	4.50	0.00	3	1.71	0.43
Community service	1.00	-0.39	2.38	0.706	1.41	0.16	2	5.18	0.02

Notes: All models estimated as random effects models.

10 Tables

Table 10.12: Mean Effect Size and Related Statistics for Victim Outcomes

Victim Outcome	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Satisfaction	0.67	0.34	1.01	0.170	3.97	0.00	7	18.20	0.01
Design type								0.18	.67
Random assignment	0.77	0.21	1.33	0.285	2.71	0.01	4		
Quasi-experiment	0.62	0.16	1.07	0.234	2.64	0.01	3		
Perception of fairness	0.64	0.28	1.00	0.182	3.52	0.00	4	9.24	0.03
Design type									
Random assignment	1.07	-0.09	2.24	0.595	1.81	0.07	1		
Quasi-experiment	0.59	0.21	0.98	0.197	3.03	0.00	3		
Attitudes toward juvenile offender	0.54	0.21	0.86	0.166	3.22	0.00	3	0.60	0.74
Forgiveness	0.66	0.29	1.03	0.190	3.48	0.00	3	2.35	0.31
Just outcome	0.64	-1.18	2.47	0.930	0.69	0.49	3	10.74	0.00
Opinion/views considered	1.16	-0.53	2.85	0.862	1.34	0.18	2	5.56	0.02
Emotions	-0.02	-0.78	0.74	0.390	-0.05	0.96	2	0.01	0.92
Procedural justice	0.24	-0.29	0.78	0.275	0.89	0.37	2	0.68	0.41
Safety and fear	-0.19	-0.84	0.46	0.332	-0.56	0.57	2	0.92	0.34
Trust	0.01	-0.50	0.52	0.260	0.05	0.96	2	1.10	0.29
Accountability	0.79	-0.02	1.59				1		

Notes: All models estimated as random effects models.

Table 10.13: Publication Selection Bias Analyses: Trim-and-Fill and Journal Article versus Other Publication Type

Analysis	Mean <i>g</i>	95% CI		SE	<i>z</i>	<i>p</i>	<i>k</i>	<i>Q</i>	<i>p</i>
		Lower	Upper						
Trim-and-Fill Method									
Original model	0.24	0.176	0.303		7.37	0.00			
Trim-and-filled model	0.24	0.176	0.303		7.37	0.00			
Publication type								3.21	0.07
Journal article	0.34	0.20	0.48	0.070	4.83	0.00	30		
Other publication type	0.19	0.10	0.28	0.046	4.11	0.00	60		

Notes: The trim-and-fill method identified no asymmetry and, as such, the original model and trim-and-filled model are identical.

11 Forest Plots

11.1 Delinquency Outcomes Forest Plots

11 Forest Plots

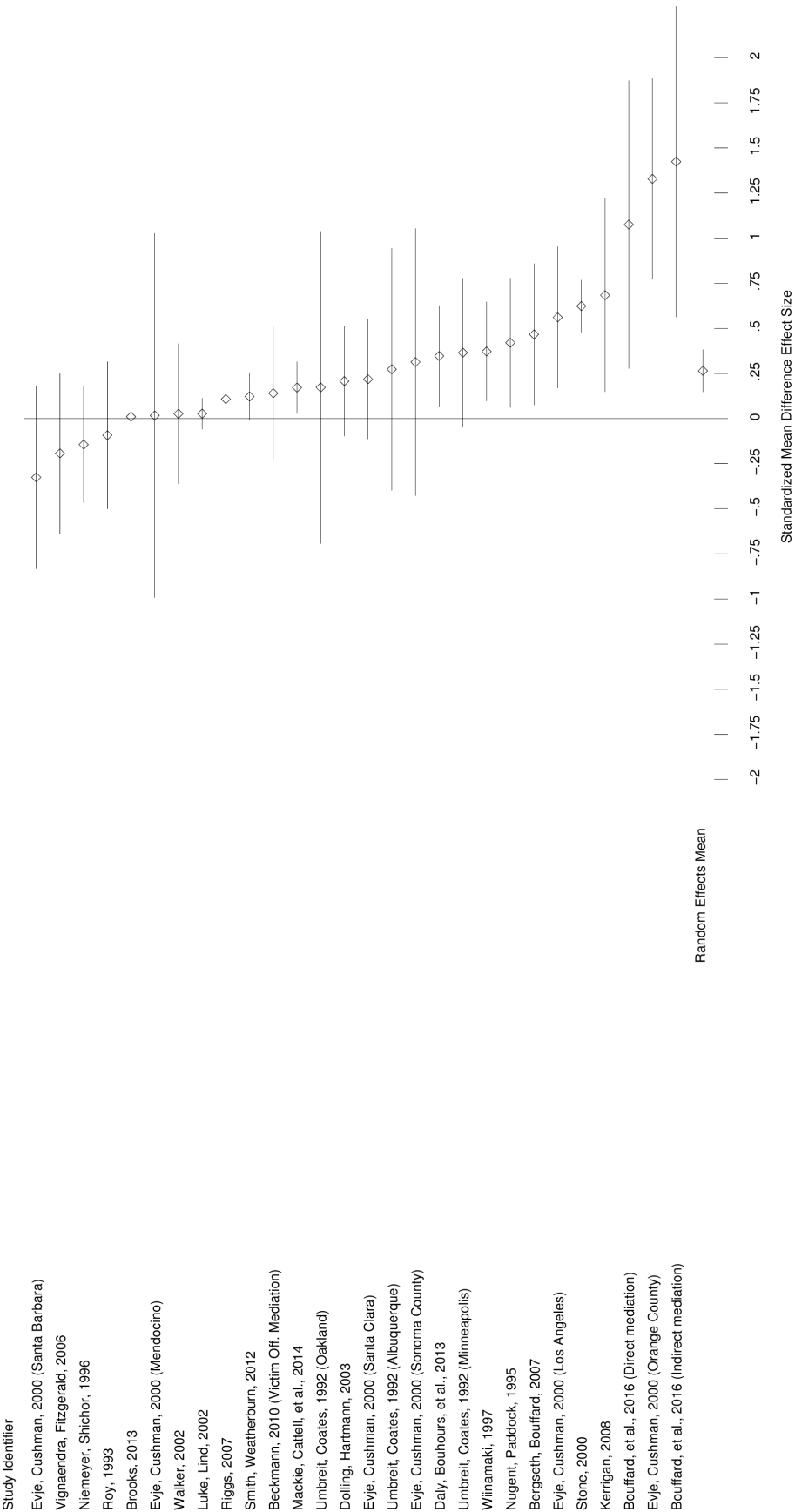


Figure 11.1: Forest Plot Showing Effect Size and 95% Confidence Intervals for Victim-Offender Conferencing Programs

11 Forest Plots

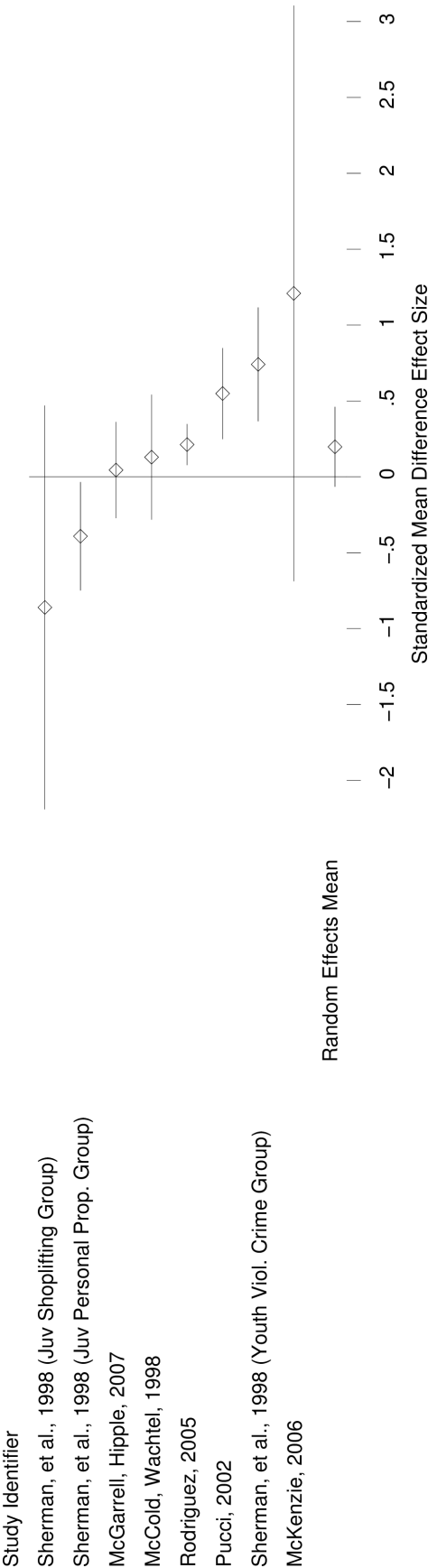


Figure 11.2: Forest Plot Showing Effect Size and 95% Confidence Intervals for Family Group Conferencing Programs

11 Forest Plots

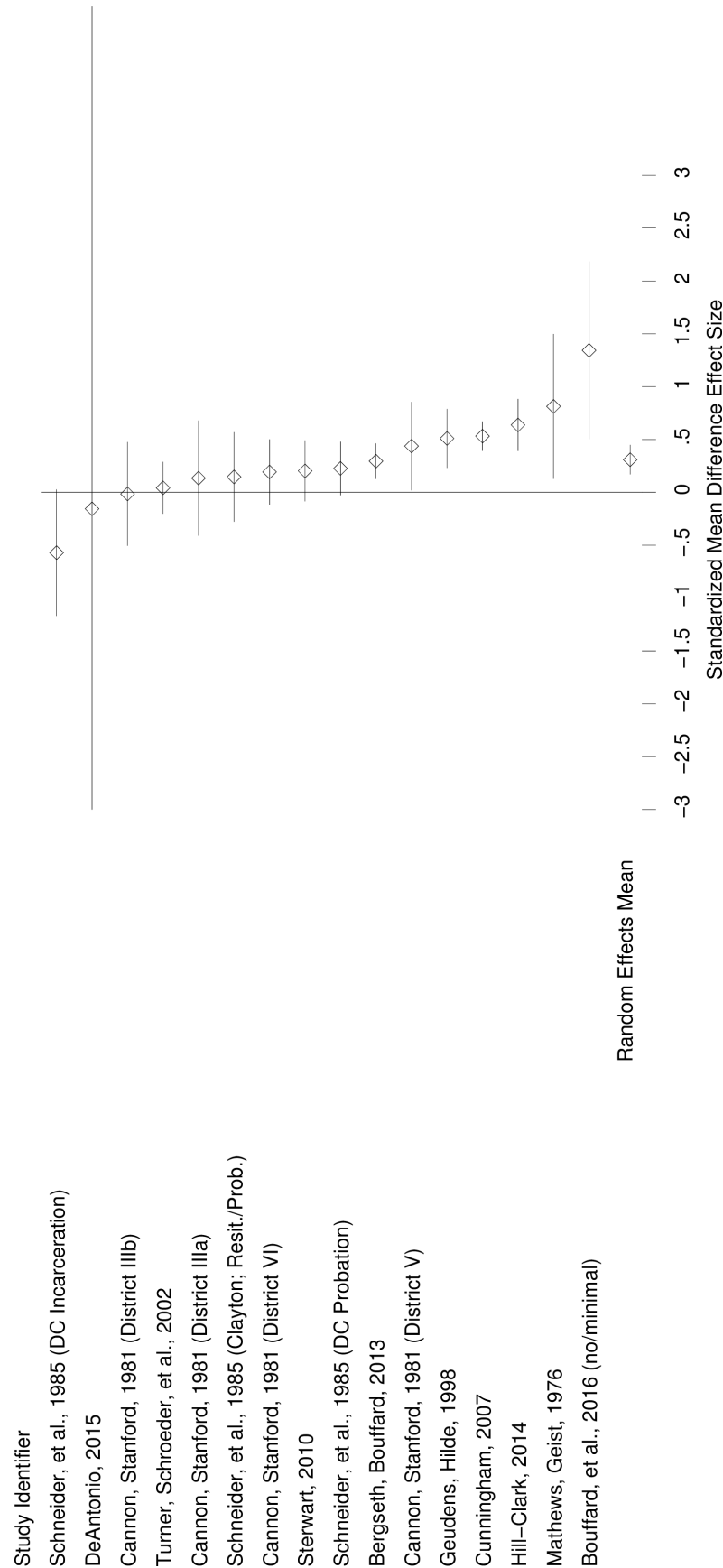


Figure 11.3: Forest Plot Showing Effect Size and 95% Confidence Intervals for Other/Multiple Programs

11 Forest Plots

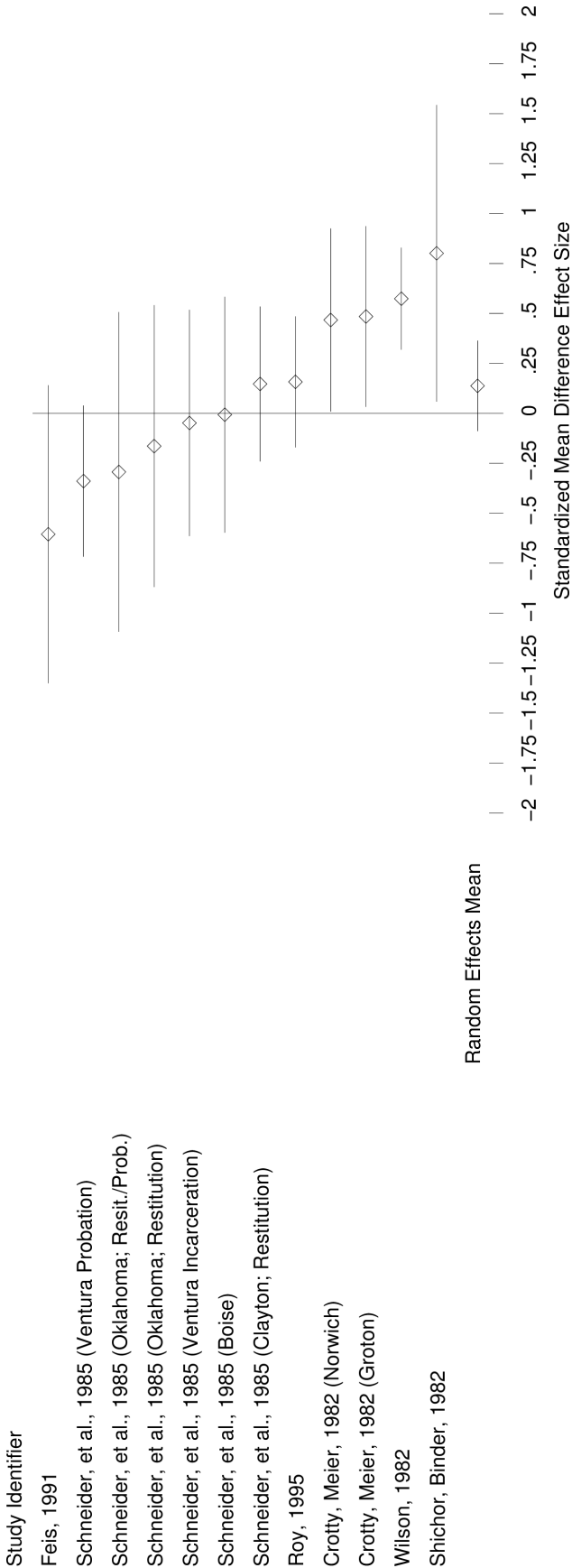


Figure 11.4: Forest Plot Showing Effect Size and 95% Confidence Intervals for Restitution Programs

11 Forest Plots

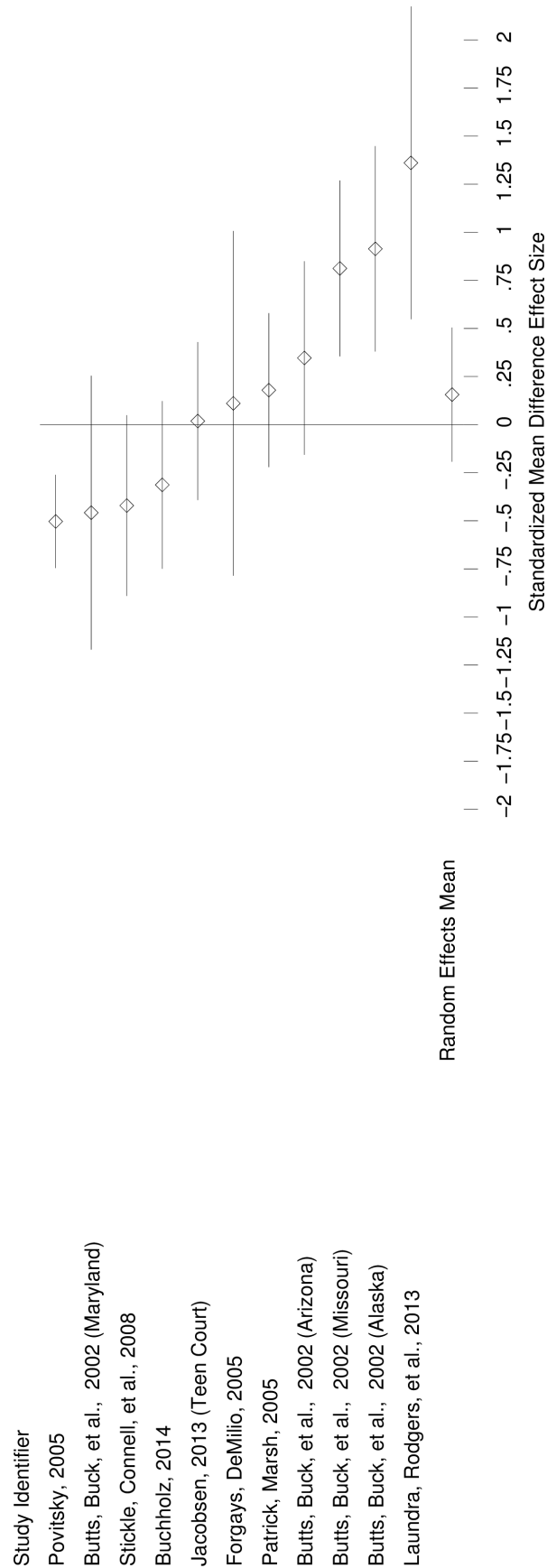


Figure 11.5: Forest Plot Showing Effect Size and 95% Confidence Intervals for Teen Court Programs

11 Forest Plots

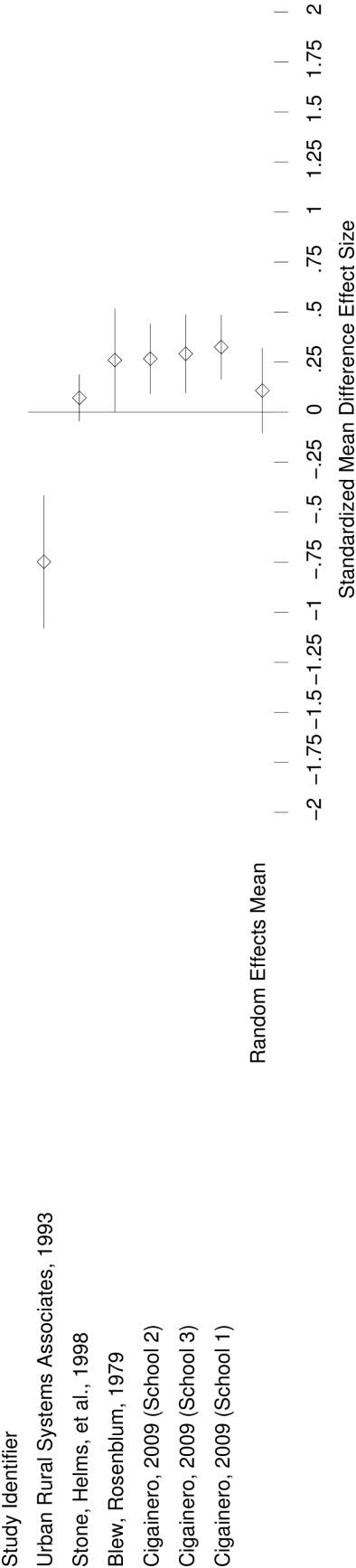


Figure 11.6: Forest Plot Showing Effect Size and 95% Confidence Intervals for Arbitration/Mediation Programs

11 Forest Plots

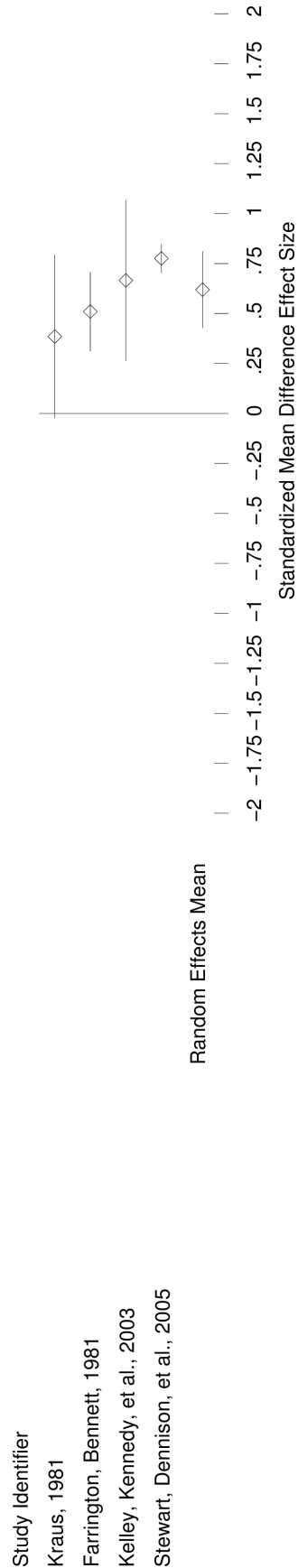


Figure 11.7: Forest Plot Showing Effect Size and 95% Confidence Intervals for Cautioning and Diversion Programs

11 Forest Plots

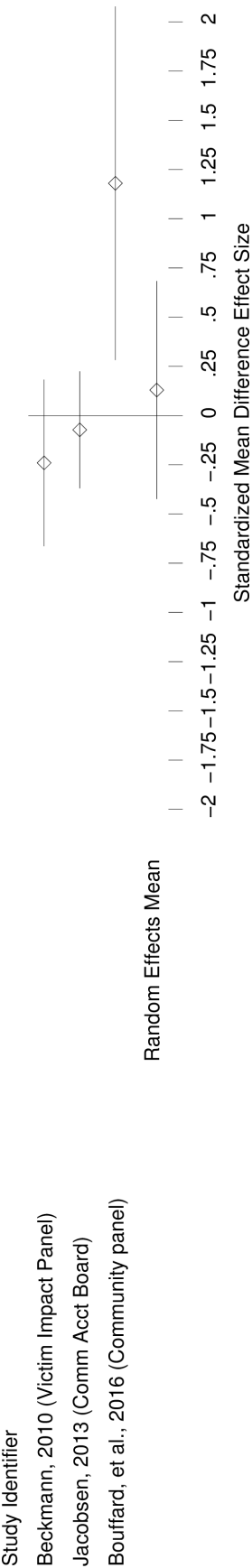


Figure 11.8: Forest Plot Showing Effect Size and 95% Confidence Intervals for Impact Panel/Reparative Board Programs

11 Forest Plots

Study Identifier
Norris, 2008
Brown-Kersey, 2011

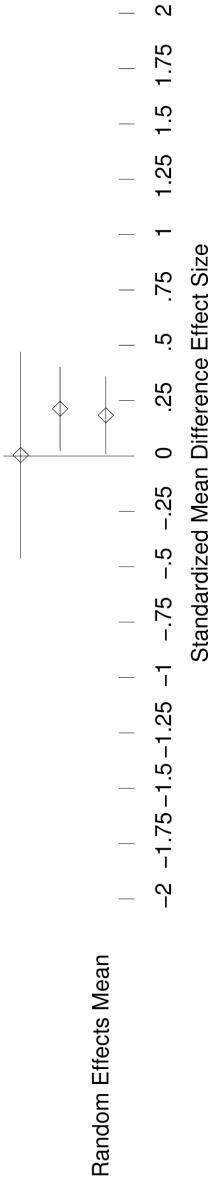


Figure 11.9: Forest Plot Showing Effect Size and 95% Confidence Intervals for Circle Sentencing Programs

11 Forest Plots

11.2 Non-Delinquency Outcomes Forest Plots

11 Forest Plots

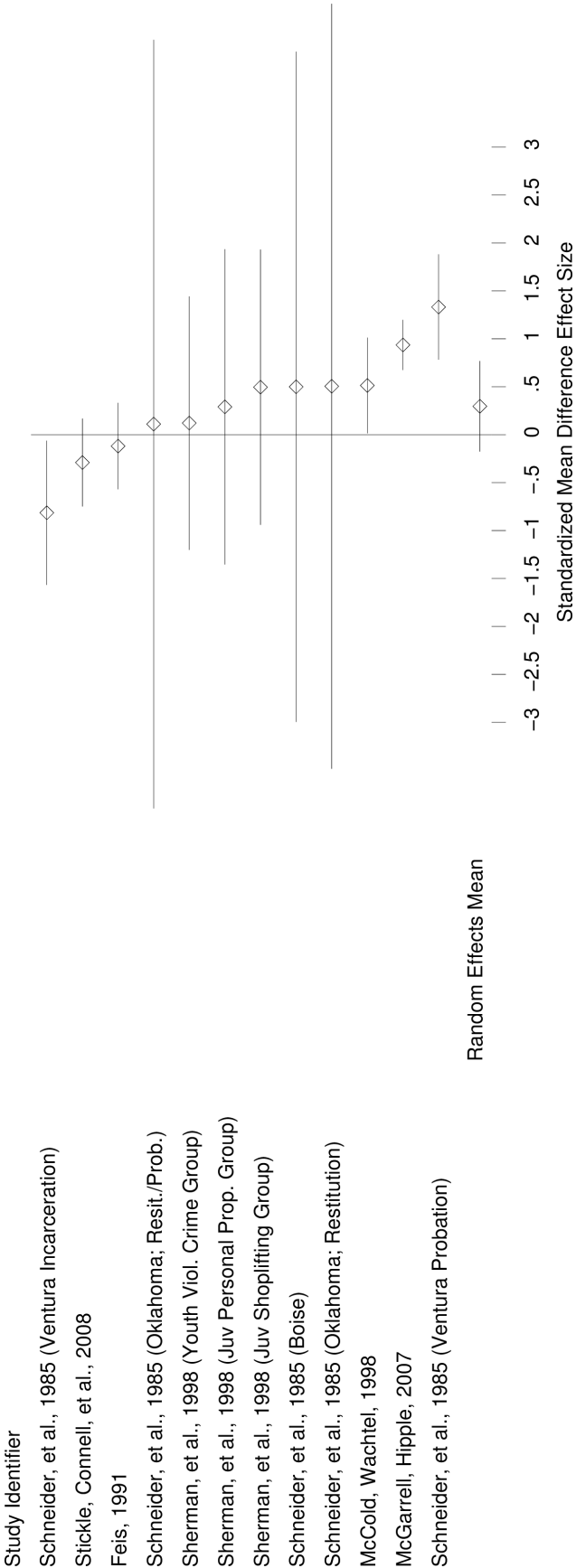


Figure 11.10: Forest Plot Showing Effect Size and 95% Confidence Intervals for Attitudes About Delinquency Outcome

11 Forest Plots

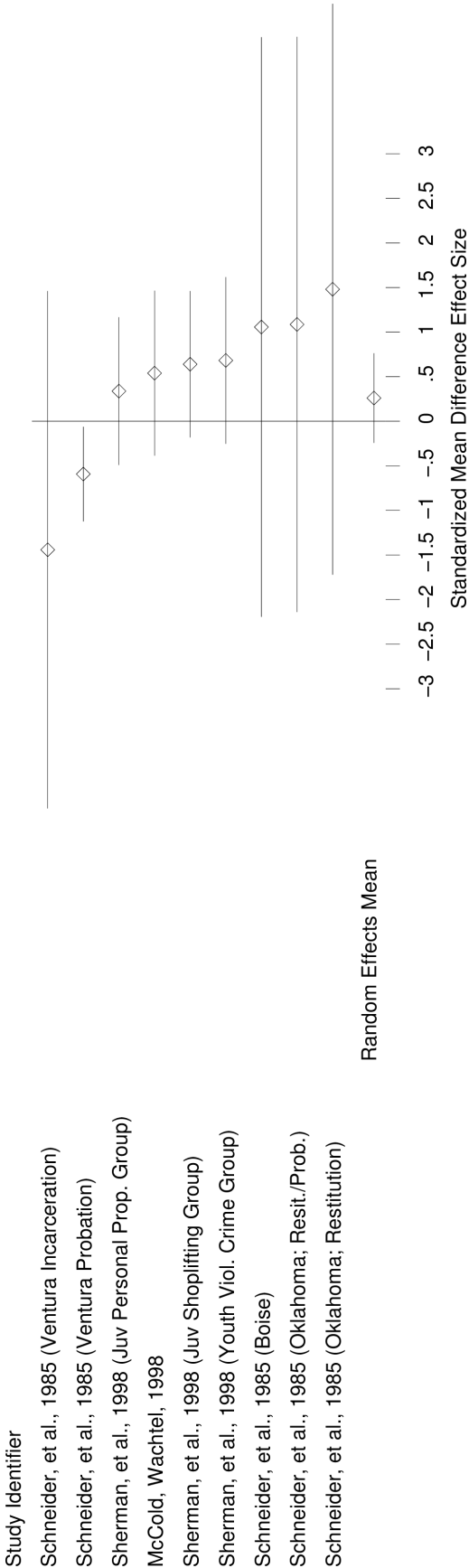


Figure 11.11: Forest Plot Showing Effect Size and 95% Confidence Intervals for Fairness Outcome

11 Forest Plots

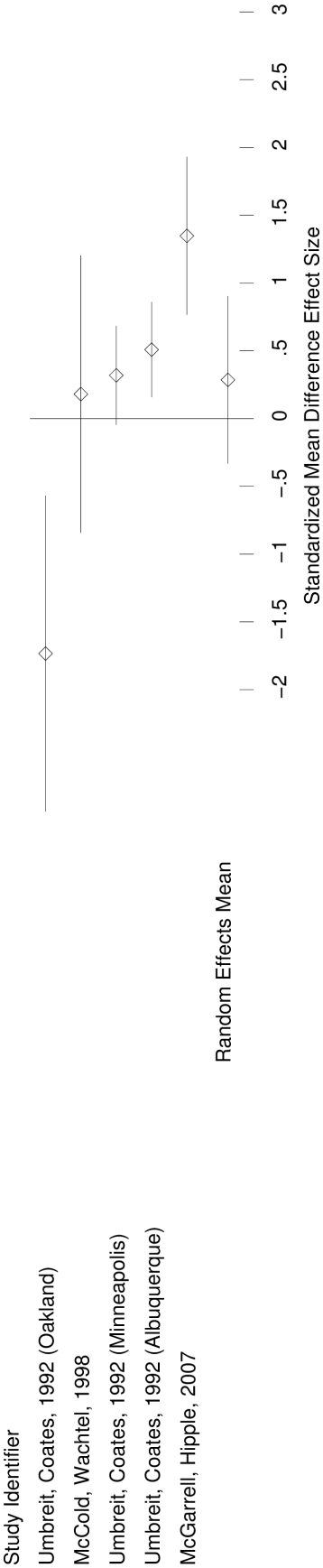


Figure 11.12: Forest Plot Showing Effect Size and 95% Confidence Intervals for Satisfaction Outcome

11 Forest Plots

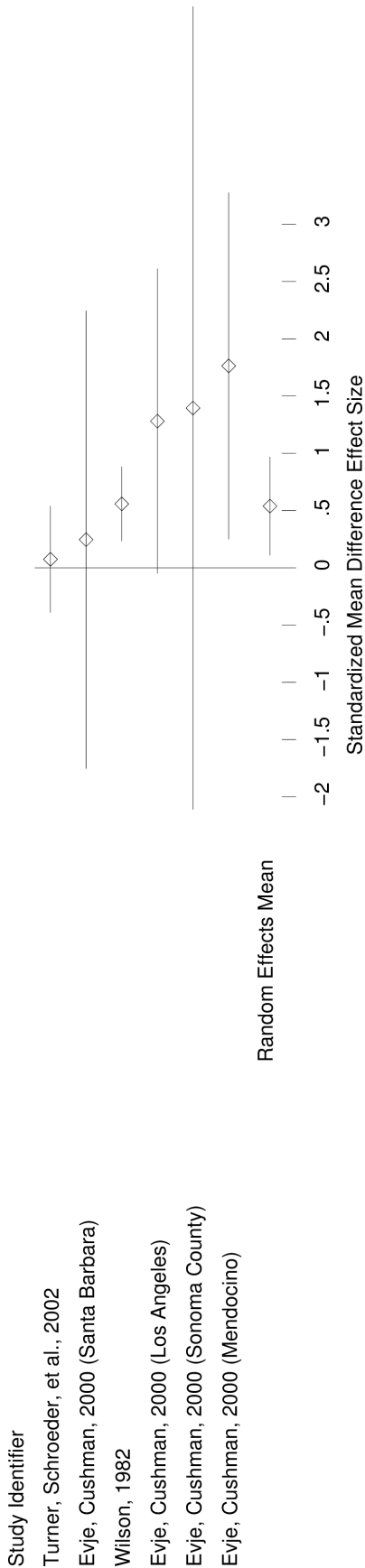


Figure 11.13: Forest Plot Showing Effect Size and 95% Confidence Intervals for Restitution Outcome

11 Forest Plots

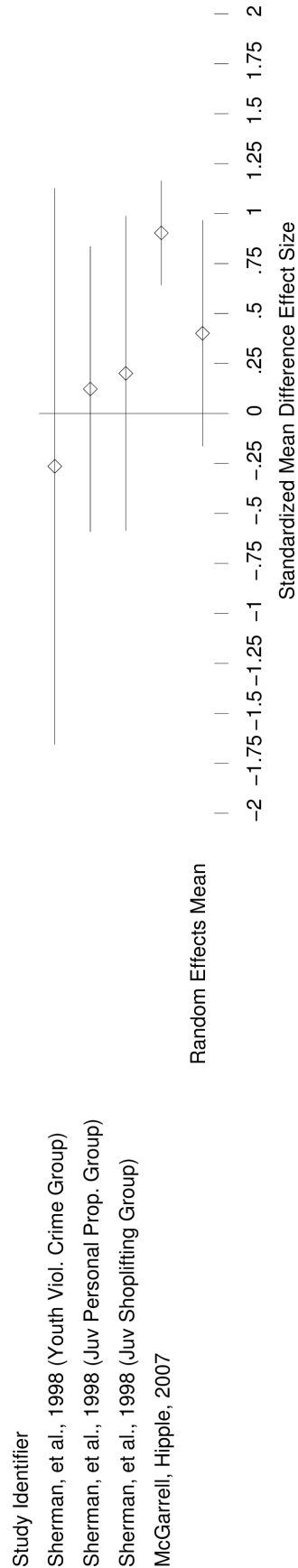


Figure 11.14: Forest Plot Showing Effect Size and 95% Confidence Intervals for Interpersonal Attitudes Outcome

11 Forest Plots

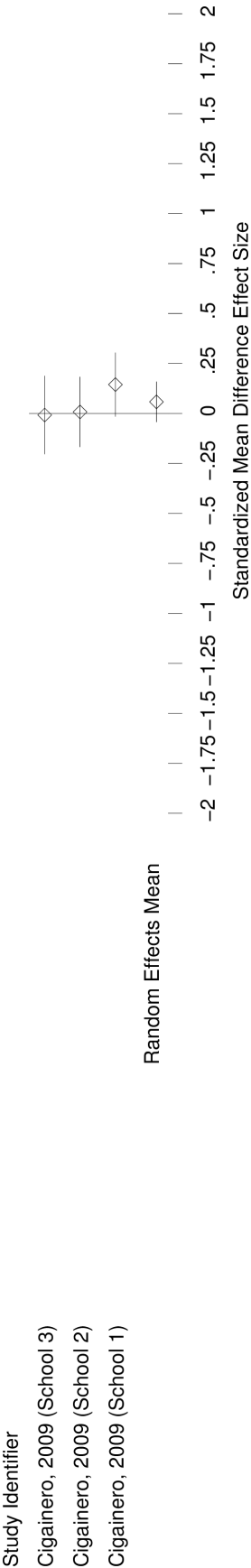


Figure 11.15: Forest Plot Showing Effect Size and 95% Confidence Intervals for Emotional Outcome

11 Forest Plots

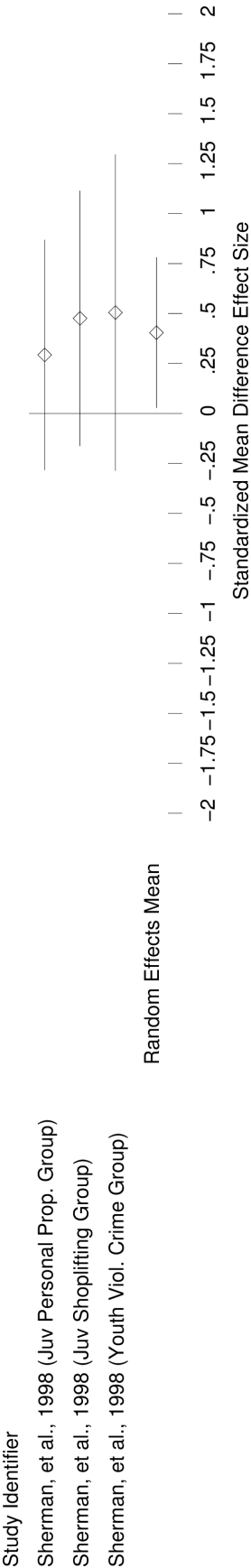


Figure 11.16: Forest Plot Showing Effect Size and 95% Confidence Intervals for Attendance Outcome

11 Forest Plots

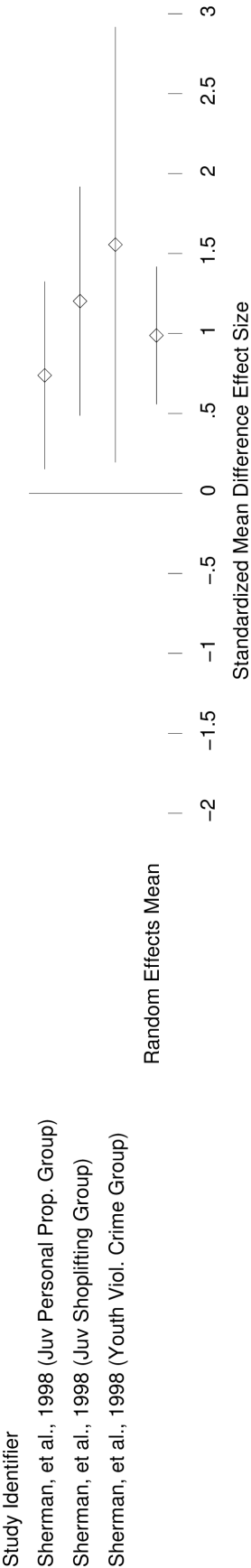


Figure 11.17: Forest Plot Showing Effect Size and 95% Confidence Intervals for Reparation Outcome

11 Forest Plots

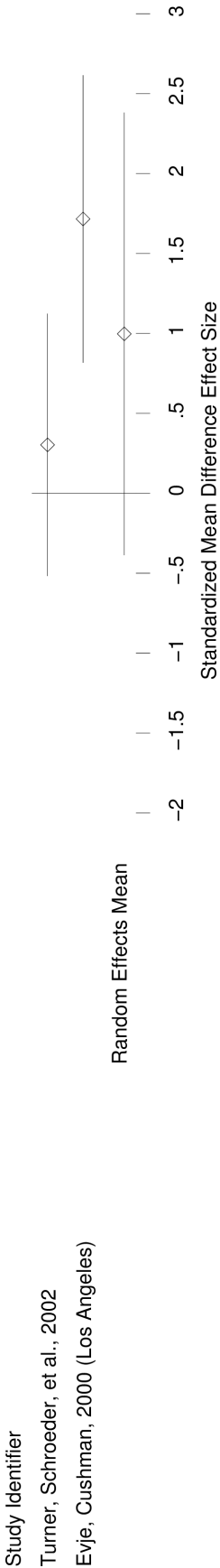


Figure 11.18: Forest Plot Showing Effect Size and 95% Confidence Intervals for Community Service Outcome

11 Forest Plots

11.3 Victim Outcomes Forest Plots

11 Forest Plots

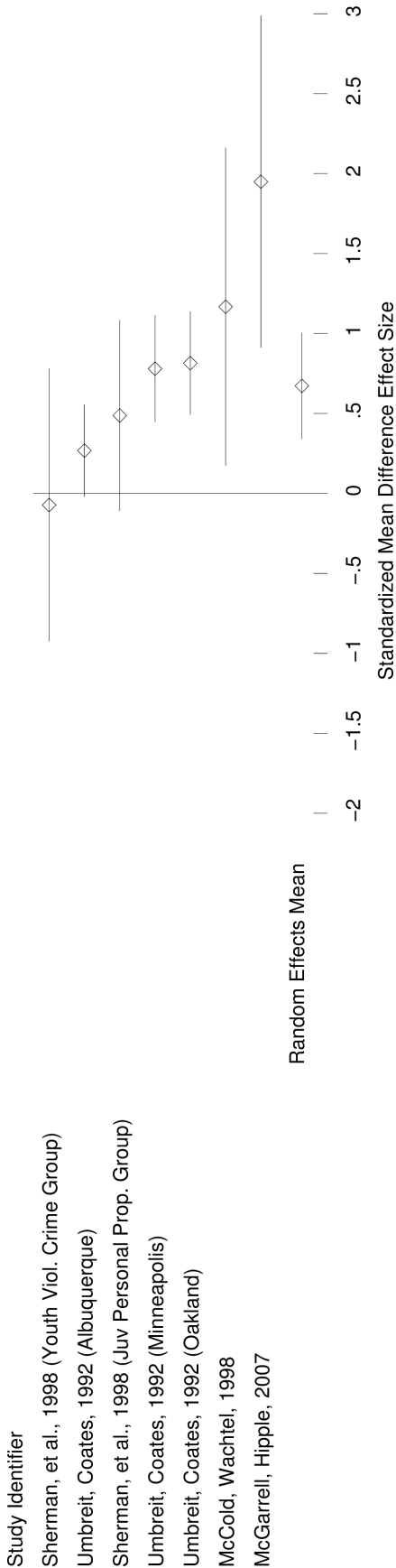


Figure 11.19: Forest Plot Showing Effect Size and 95% Confidence Intervals for Satisfaction Outcome

11 Forest Plots

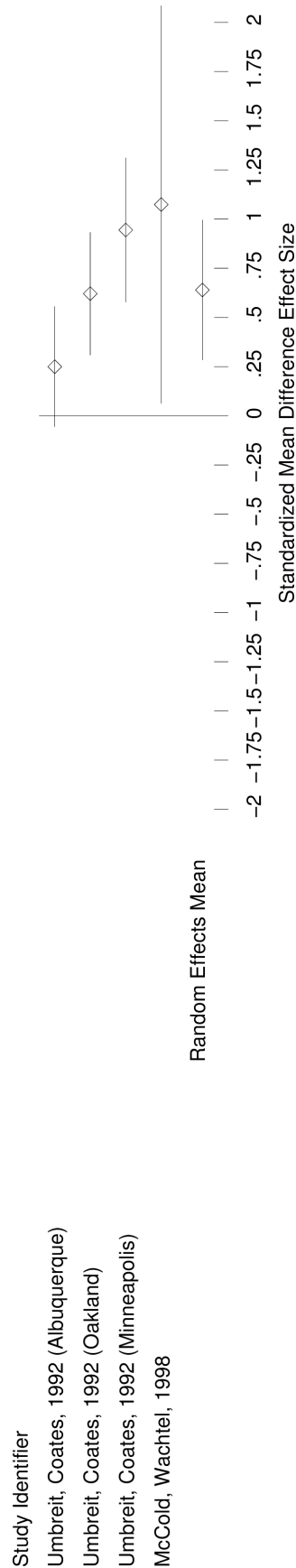


Figure 11.20: Forest Plot Showing Effect Size and 95% Confidence Intervals for Perception of Fairness Outcome

11 Forest Plots

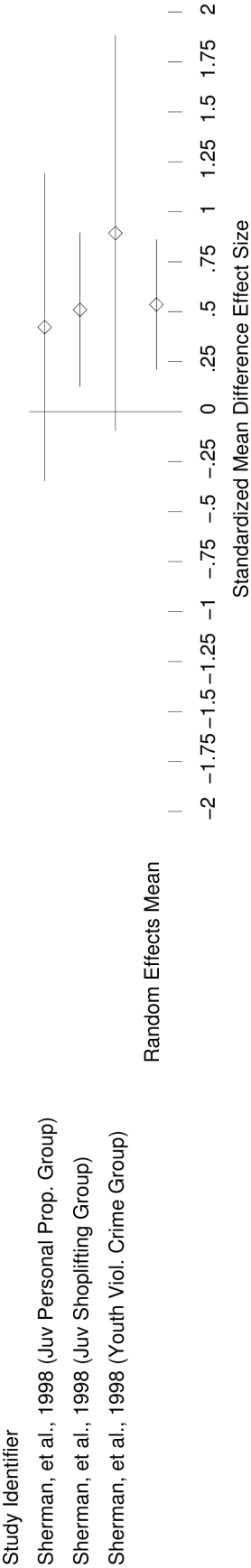


Figure 11.21: Forest Plot Showing Effect Size and 95% Confidence Intervals for Attitudes Toward Juvenile Offender Outcome

11 Forest Plots

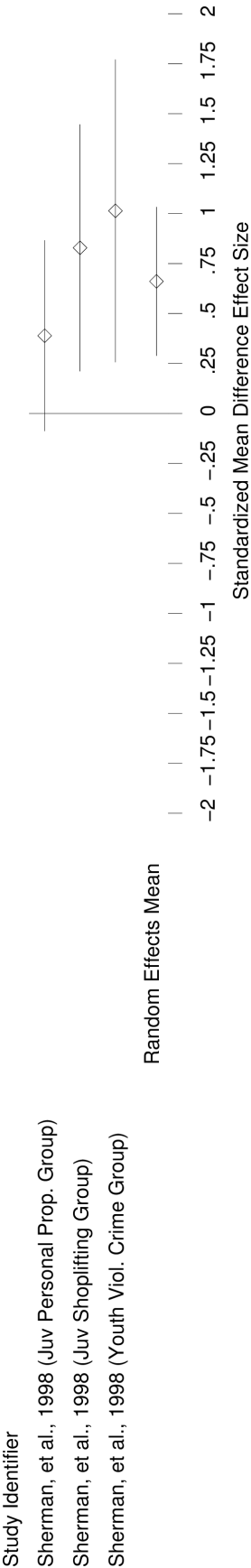


Figure 11.22: Forest Plot Showing Effect Size and 95% Confidence Intervals for Forgiveness Outcome

11 Forest Plots

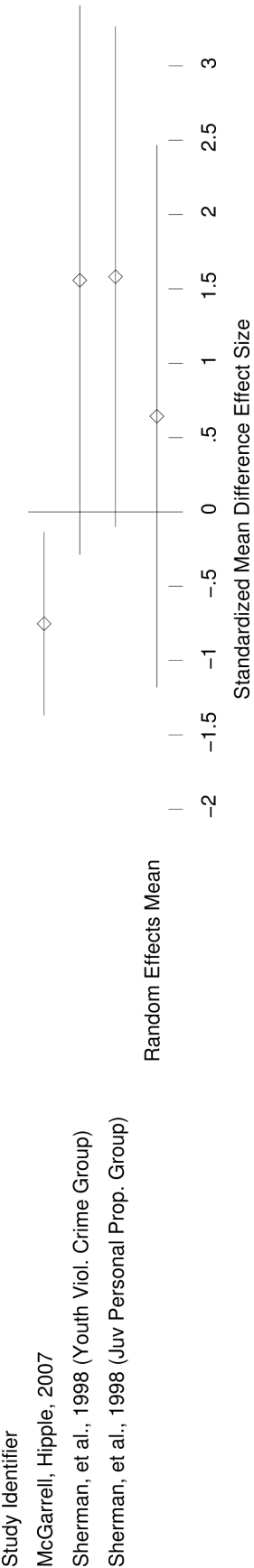


Figure 11.23: Forest Plot Showing Effect Size and 95% Confidence Intervals for Just Outcome Outcome

11 Forest Plots

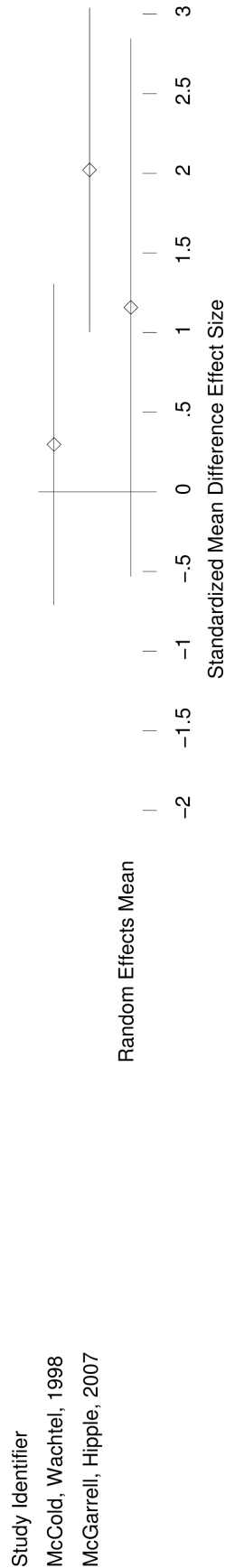


Figure 11.24: Forest Plot Showing Effect Size and 95% Confidence Intervals for Opinion/Views Considered Outcome

11 Forest Plots

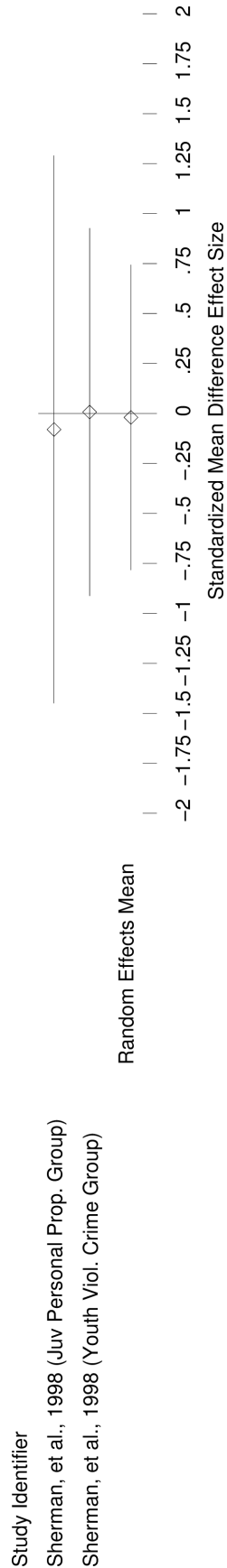


Figure 11.25: Forest Plot Showing Effect Size and 95% Confidence Intervals for Emotions Outcome

11 Forest Plots

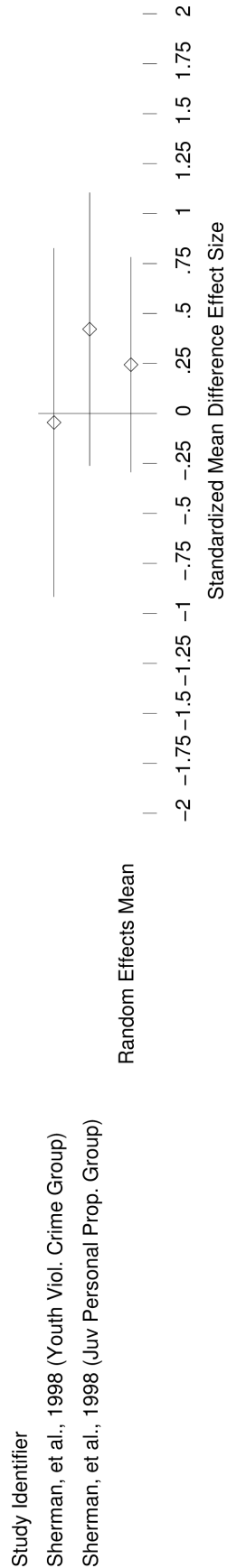


Figure 11.26: Forest Plot Showing Effect Size and 95% Confidence Intervals for Procedural Justice Outcome

11 Forest Plots

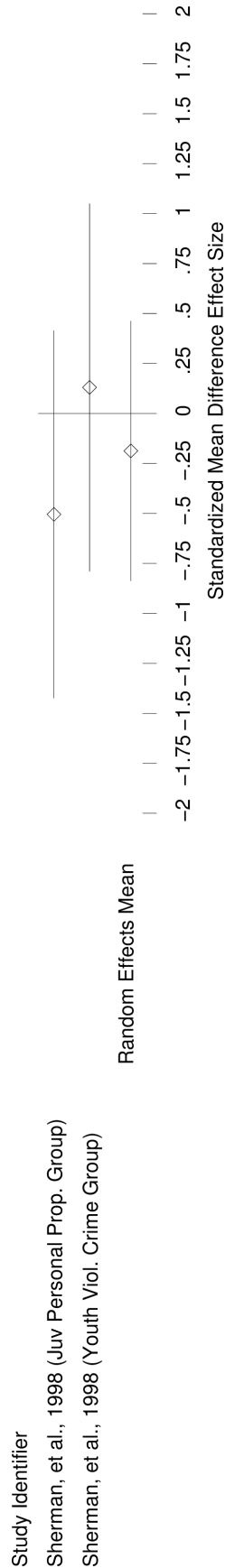


Figure 11.27: Forest Plot Showing Effect Size and 95% Confidence Intervals for Safety and Fear Outcome

11 Forest Plots

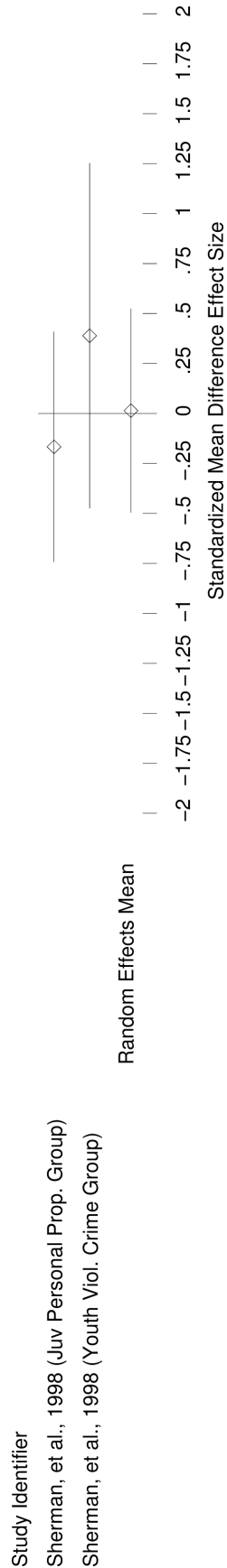


Figure 11.28: Forest Plot Showing Effect Size and 95% Confidence Intervals for Trust Outcome

11 Forest Plots

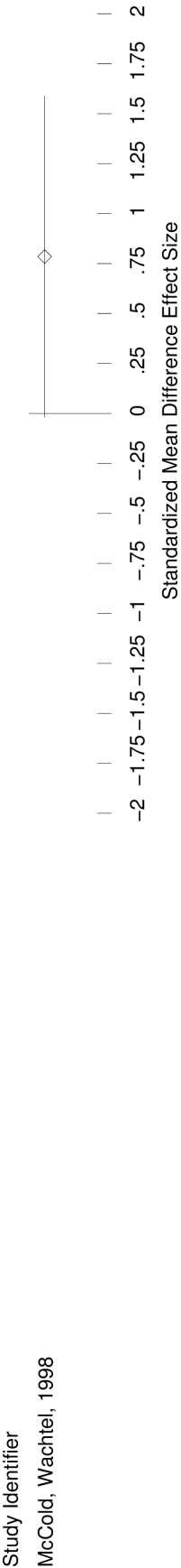


Figure 11.29: Forest Plot Showing Effect Size and 95% Confidence Intervals for Accountability Outcome

11 Forest Plots

11.4 Funnel Plot for Publication Selection Bias

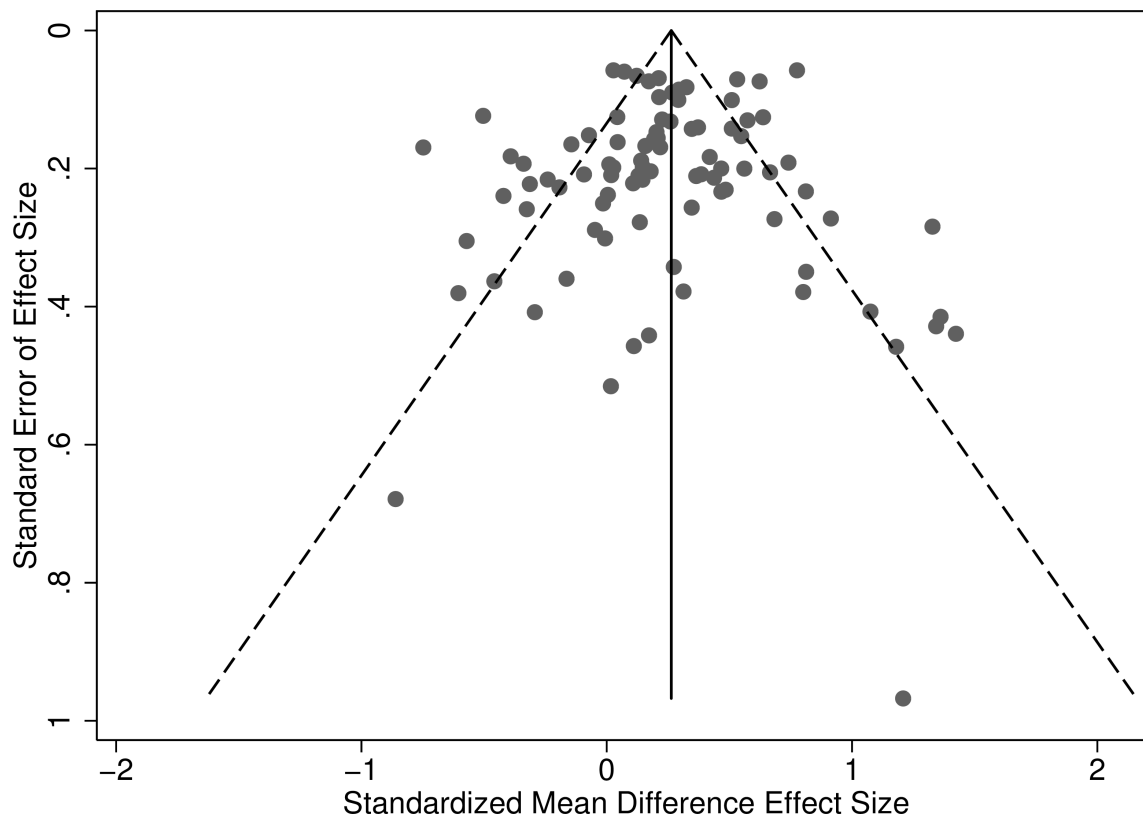


Figure 11.30: Funnel Plot for Assessing Publication Selection Bias

12 FileMaker Database Screenshots

This appendix shows the database used to code the studies and serves as the codebook for this meta-analysis.

12 FileMaker Database Screenshots

Title and Abstract Screening Page

Screening status

Retrieve

Exclude

Duplicate

Title

Author

Abstract

Eligibility Screening on Full-Text

106

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Study Level Coding

Reference ID

929e

Coder initial's

CSK

Creation date

12/9/2016

Modification date

3/3/2017

Other Related References

391393925927928934935937

Reference

Schneider, A. L., & Schneider, P. R. (1985). *Impact of restitution on recidivism of juvenile offenders: Results from five experimental studies*. Institute of Policy Analysis.

Study Header Notes

Instructions

Context

Groups

Design

A study is a single research project or evaluation. Such a study might be reported across multiple publications. Identify the most formally published and complete as the primary reference ID. Indicate all related publications in the "Other Related References" fields.

It is also possible for a manuscript to report on the results from multiple independent evaluations. In such a case, Add a letter to the end of the reference ID, such as "a", "b", etc. These references can be duplicated in the reference database with the updated IDs so that the reference appears in the reference field above.

A study may have multiple treatment and control groups. At the study level, you are coding these as a single entity. Each group (treatment and control) is coded separately at the condition level. Only conditions that are used in the meta-analysis need to be coded at that level. **It is critical that you indicate how these conditions are to be paired. For example, if there is only 1 treatment condition and 1 control condition, these would have the condition ID of 1 and 2 and be paired as 1 with 2.** If a study has 2 treatment conditions and 1 control condition, the treatment conditions would have the IDs of 1 and 2 and the control condition would have the condition ID of 3. The pairs would be 1 with 3 and 2 with 3.

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Study Level Coding

Reference ID

929e

Coder initial's

CSK

Creation date

12/9/2016

Modification date

3/3/2017

Other Related References

391393395927928934935937

Reference

Schneider, A. L., & Schneider, P. R. (1985). *Impact of restitution on recidivism of juvenile offenders: Results from five experimental studies*. Institute of Policy Analysis.

Study Header Notes

Instructions

Context

Groups

Design

Type of publication: if multiple, code highest in list; e.g., if dissertation and journal article, code study as journal article.

1

Book

2

Journal article/book chapter

3

Thesis-dissertation

4

Technical report

5

Conference paper

6

Other

Country in which the study was conducted.

1

United States

2

Canada

3

UK

4

Australia

5

EU

6

Other

1985

Year of publication (four digits; estimate if necessary; if multiple report, use earliest date

Program sponsorship [This is a question of who makes decisions like staffing, changing the program, etc.]

1

Demonstration program/treatment administered by researchers for one treatment cohort only

2

Demonstration program/treatment run by researchers for multiple treatment cohorts

3

Independent "private" program with own facility, staff, etc. (e.g., YMCA, private agency, university clinic)

4

Public program, non-juvenile justice sponsorship (e.g., school sponsored, community mental health, department of social services)

5

Public program, juvenile justice sponsorship (e.g., police, probation, courts)

6

Cannot tell (no information)

7

Mixed

108

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Study Level Coding

Reference ID929e

Coder initial'sCSK

Creation date12/9/2016

Modification date3/3/2017

Other Related References391393925927928934935937

Reference

Schneider, A. L., & Schneider, P. R. (1985). *Impact of restitution on recidivism of juvenile offenders: Results from five experimental studies.* Institute of Policy Analysis.

Study Header Notes

Instructions

Context

Groups

Design

A study may have multiple treatment conditions and multiple control conditions. Indicate the number of treatment and control conditions in the study, even if we are not using data from some of these groups. Code this based on the number of distinct groups as identified by study authors.

3Total number of treatment groups for this study.

1Total number of control groups for this study.

Indicate the number of treatment and control conditions that will be coded. An eligible treatment condition is any treatment with a restorative justice component. A control condition is the non-restorative justice condition that is most comparable in terms of participant characteristics. Note that a single control group may be used for more than one treatment-control comparison.

2Number of treatment groups coded.

1Number of control groups coded.

Treatment groups overlap (i.e., contain some of the same individuals).

☒ 0

☐ No

☐ 1

☐ Yes

Labels for coded treatment groups:

Restitution only

Restitution and counseling combined

Labels for coded control groups:

Control

Note: If a study provides the data separately for treatment completers versus treatment drop-outs, treat this as a single group. We are interested in an intent-to-treatment comparison and as such will aggregate the data to re-create the intent-to-treat group.

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Study Level Coding

Reference ID929e

Coder initial'sCSK

Creation date12/9/2016

Modification date3/3/2017

Other Related References391393925927928934935937

Reference

Study Header Notes

Schneider, A. L., & Schneider, P. R. (1985). *Impact of restitution on recidivism of juvenile offenders: Results from five experimental studies.* Institute of Policy Analysis.

Instructions

Context

Groups

Design

Unit-of-assignment

☐ 1 individual

☐ 2 classroom/school

☐ 3 program area, regions, etc.

☒ 4 case (might include multiple offenders)

☐ 5 cannot tell

How subjects were assigned to condition (this is about assignment not sampling)

☐ 1 randomly after matching, yoking, stratification, blocking, etc.

☒ 2 randomly without matching

☐ 3 regression discontinuity (quantitative cutting point defines groups)

☐ 4 wait list control or other such quasi-random procedures (e.g., alternating cases)

☐ 5 quasi-experimental, matched individual level

☐ 6 quasi-experimental, matched group level (e.g., classrooms)

☐ 7 quasi-experimental, statistical controls for baseline differences

☐ 8 quasi-experimental, no statistical controls for baseline differences

☐ 9 quasi-experimental, other

☐ 10 quasi-experimental, cohort design (historical controls)

If random assignment or regression discontinuity design

☐ 1 integrity of randomization or other assignment method maintained (no more than a few cases failed to end up in desired group)

☒ 2 failures of randomization or assignment occurred

☐ 3 no information on integrity of assignment process

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID
187c

Condition ID
1

Coder initial's
CSK

Creation date
3/10/2017

Modification date
3/10/2017

Condition label
Peer mediation

Reference

Type and Pairing

Treatment or control group:

- ☒ 1 RJ (treatment condition)
- ☐ 2 Non-RJ condition (control)

2

Do not edit this label! This should be the control that this condition is paired to. Note: This won't appear until you have created the control condition record.

Before peer mediation implemented

Description of this condition (use text from article if possible)

"Peer mediation consists of training students to act as mediators during conflicts that arise between students. Peer mediation also teaches conflict resolution, problem solving, reasoning, and critical-thinking skills" (pg. 3).

Sample
Justice System
RJ Elements
Staff
Other Tx Elements
Dosage
Selection Bias 1
Selection Bias 2

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID

187c

Condition ID

1

Coder initial's

CSK

Creation date

3/10/2017

Modification date

3/10/2017

Condition label

Peer mediation

Reference

Type and Pairing

Sample

Justice System

RJ Elements

Staff

Other Tx Elements

Dosage

Selection Bias 1

Selection Bias 2

200

Sample size for this condition at start of study (before attrition)

-99

Mean (or median) age for this condition (-99 if missing or unknown).

-99

Percent of this condition that is male (-99 if missing or unknown).

Sex distribution for this condition (best estimate):

☐ 1

100% Male

☐ 2

90-99% Male

☐ 3

75-89% Male

☐ 4

26-74% Male

☐ 5

11-25% Male

☐ 6

1-10% Male

☐ 7

0% Male

☒ 8

Unknown

☐ 9

Sample demographics based on total sample values

☐ 1

Yes

☐ 2

No

☐ 3

Mixed

☒ 4

Not applicable

Percent of this condition that is represented by each of the following race/ethnic group (-99 if missing unknown):

-99

African American

-99

White

-99

Hispanic

-99

Asian

-99

Other

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID: 187c Condition ID: 1 Creation date: 3/10/2017 Modification date: 3/10/2017 Coders initials: CSK Reference:

Condition label: Peer mediation

Type and Pairing Sample Justice System RJ Elements Staff Other Tx Elements Dosage Selection Bias 1 Selection Bias 2

Predominant level of reoffense risk of subjects in this condition:

- ☒ 1 nondelinquents, normal (regular kids)
- ☐ 2 nondelinquents, at-risk
- ☐ 3 predelinquents, minor police contact no formal probation or court contact
- ☐ 4 delinquents
- ☐ 5 institutionalized, non juvenile justice setting
- ☐ 6 institutionalized, juvenile justice setting

Source of clients for this condition:

- ☐ 1 voluntary (self-referred)
- ☐ 2 referred by parent
- ☒ 3 referred by school
- ☐ 4 referred by police
- ☐ 5 referred by probation office
- ☐ 6 referred by court
- ☐ 7 other
- ☐ 8 multiple, specify the sources:
- ☐ 9 cannot tell

Location where treatment occurs:

- ☐ 1 community-based
- ☐ 2 criminal justice system based
- ☒ 3 school-based
- ☐ 4 cannot tell

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID: 187c Condition ID: 1 Codr initial's: CSK Creation date: 3/10/2017 Modification date: 3/10/2017

Condition label: Peer mediation Reference:

Type and Pairing	Sample	Justice System	RJ Elements	Staff	Other Tx Elements	Dosage	Selection Bias 1	Selection Bias 2																																																																																																																																																
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Type of restorative justice program <table> <tr> <td>☒ 1</td><td>Arbitration/mediation</td> </tr> <tr> <td>☐ 2</td><td>Cautioning/Diversion</td> </tr> <tr> <td>☐ 3</td><td>Circle/peace/sentencing circle</td> </tr> <tr> <td>☐ 4</td><td>Conflict resolution</td> </tr> <tr> <td>☐ 5</td><td>Family group conferencing</td> </tr> <tr> <td>☐ 6</td><td>Mentoring</td> </tr> <tr> <td>☐ 7</td><td>Reintegrative shaming</td> </tr> <tr> <td>☐ 8</td><td>Restorative justice conference</td> </tr> <tr> <td>☐ 9</td><td>Teen/youth court</td> </tr> <tr> <td>☐ 10</td><td>Victim offender dialogue/mediation/reconciliation</td> </tr> <tr> <td>☐ 11</td><td>Youth conferencing</td> </tr> <tr> <td>☐ 12</td><td>Victim/community/neighborhood impact panels/reparative boards</td> </tr> <tr> <td>☐ 13</td><td>Other, multiple programs</td> </tr> <tr> <td>☐ 14</td><td>Restitution</td> </tr> </table>									☒ 1	Arbitration/mediation	☐ 2	Cautioning/Diversion	☐ 3	Circle/peace/sentencing circle	☐ 4	Conflict resolution	☐ 5	Family group conferencing	☐ 6	Mentoring	☐ 7	Reintegrative shaming	☐ 8	Restorative justice conference	☐ 9	Teen/youth court	☐ 10	Victim offender dialogue/mediation/reconciliation	☐ 11	Youth conferencing	☐ 12	Victim/community/neighborhood impact panels/reparative boards	☐ 13	Other, multiple programs	☐ 14	Restitution																																																																																																																				
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☐ 14	Restitution																																																																																																																																																							

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID187c

Condition ID1

Coder initial'sCSK

Creation date3/10/2017

Modification date3/10/2017

Condition labelPeer mediation

Reference

Type and Pairing

Sample

Justice System

RJ Elements

Staff

Other Tx Elements

Dosage

Selection Bias 1

Selection Bias 2

Who administers treatment (i.e., conducts the face-to-face treatment interaction with the juvenile)

1

criminal justice or juvenile justice personnel (e.g., police, probation officer, judge, etc.)

2

school personnel (e.g., teachers, principals)

3

public mental health personnel (public agency)

4

private mental health personnel (private agency, counselors, etc.)

5

non mental health professionals, counselors, consultants, etc. ; e.g., vocational counselors

6

laypersons, e.g., volunteers, college students, ex-delinquents

7

researcher/research team

8

other:

9

cannot tell (not identifiable)

10

mixed, multiple personnel

11

mediator/volunteer mediator

trained students

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID: 187c Condition ID: 1 Codr initial's: CSK Creation date: 3/10/2017 Modification date: 3/10/2017

Condition label: Peer mediation Reference:

Type and Pairing Sample Justice System RJ Elements Staff Other Tx Elements Dosage Selection Bias 1 Selection Bias 2

Indicate which restorative justice principles are part of this condition (0=no; 1=yes; 9=cannot tell)

☐ 0	☐ 1	☐ 9	Apology letter	☒ 1	Arbitration/mediation
☐ 0	☐ 1	☐ 9	Community service	☐ 2	Cautiousing/Diversion
☐ 0	☐ 1	☐ 9	Follow-up for compliance	☐ 3	Circle/peace/sentencing circle
☐ 0	☐ 1	☐ 9	Face-to-face meeting	☐ 4	Conflict resolution
☐ 0	☐ 1	☐ 9	Facilitator/mediator	☐ 5	Family group conferencing
☐ 0	☐ 1	☐ 9	Family involved/present	☐ 6	Mentoring
☐ 0	☐ 1	☐ 9	Apology verbal	☐ 7	Reintegrative shaming
☐ 0	☐ 1	☐ 9	Restitution	☐ 8	Restorative justice conference
☐ 0	☐ 1	☐ 9	Restorative agreement	☐ 9	Teen/youth court
☐ 0	☐ 1	☐ 9	Use of a script	☐ 10	Victim offender dialogue/mediation/reconciliation
☐ 0	☐ 1	☐ 9	Victim present	☐ 11	Youth conferencing
☐ 0	☐ 1	☐ 9	Pre-conference/mediation	☐ 12	Victim/community/neighborhood impact panels/reparative boards
☐ 0	☐ 1	☐ 9	Community involvement	☐ 13	Other, multiple programs
☐ 0	☐ 1	☐ 9	Personal services to victims	☐ 14	Restitution
☐ 0	☐ 1	☐ 9	Victim empathy groups or classes		
☐ 0	☐ 1	☐ 9	indirect mediation/shuttle mediation		

Type of restorative justice program

☒ 1 Arbitration/mediation

☐ 2 Cautiousing/Diversion

☐ 3 Circle/peace/sentencing circle

☐ 4 Conflict resolution

☐ 5 Family group conferencing

☐ 6 Mentoring

☐ 7 Reintegrative shaming

☐ 8 Restorative justice conference

☐ 9 Teen/youth court

☐ 10 Victim offender dialogue/mediation/reconciliation

☐ 11 Youth conferencing

☐ 12 Victim/community/neighborhood impact panels/reparative boards

☐ 13 Other, multiple programs

☐ 14 Restitution

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID

187c

Condition ID

1

Coder initial's

CSK

Creation date

3/10/2017

Modification date

3/10/2017

Condition label

Peer mediation

Reference

Type and Pairing

Sample

Justice System

RJ Elements

Staff

Other Tx Elements

Dosage

Selection Bias 1

Selection Bias 2

999

Approximate duration of treatment in weeks
(if in months, divide by 4.3; code as 999 if cannot tell)

Frequency of contact for this condition

1

continuous (residential)

2

daily contact

3

3-4 times a week

4

1-2 times a week

5

less than weekly

6

cannot tell

Format for this condition

1

individual

2

group

3

family

4

individual and family

5

individual and group

6

other mixed

7

not applicable

Summarize any implementation issues specific to this condition:

117

118

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Condition Level Coding

Reference ID

187c

Condition ID

1

Coder initial's

CSK

Creation date

3/10/2017

Modification date

3/10/2017

Condition label

Peer mediation

Reference

Type and Pairing

Sample

Justice System

RJ Elements

Staff

Other Tx Elements

Dosage

Selection Bias 1

Selection Bias 2

Does this condition include victims or offenders who declined to participate?

1

Yes

2

No

3

Not applicable

4

Cannot tell

Notes about selection bias:

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Dependent Variable (Outcome) Level Coding

Reference ID

Coder initial's

Creation date

Modification date

661

amo

1/13/2017

1/13/2017

9

Dependent variable ID and label

Positive attitude toward victim

Dependent variable type:

☐ Delinquency

☒ Non-Delinquency

☐ Victim

Instructions

Measure

Delinquency

Non-Delinquency

Victim

Notes

Elements reported in this delinquency measure irrespective of the type of incident and reporting source (check best one):

☐ 1

global dichotomy or polychotomy (e. g., offended or recidivated, yes/no), most common for arrests/convictions

☐ 2

summed dichotomous (e.g., sum of yes/no on list of specific offenses), almost never see, composite of dichotomy or polychotomy elements

☐ 3

frequency or rate, (count of incident; incidents per 1000 persons)

☒ 4

severity (seriousness rating or index); see this often with self-report measures

☐ 5

event timing (e.g., days without recidivism; time to first offense)

☐ 6

proportion or amount of time in custody, under supervision, etc., not seen often

☐ 7

rating of amount of delinquency, severity, change, etc.(this is similar to frequency but in rating form, ex. how often you did "x" behavior)

☐ 8

more than one of above elements combined in composite measure

☐ 9

other

☐ 10

cannot tell

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Restorative Justice Programs for Youth Systematic Review

Dependent Variable (Outcome) Level Coding

Reference ID

Coder initial's

Creation date

Modification date

661

amo

1/13/2017

1/13/2017

9

Dependent variable ID and label

Positive attitude toward victim

Dependent variable type:

☐ Delinquency

☒ Non-Delinquency

☐ Victim

Instructions

Measure

Delinquency

Non-Delinquency

Victim

Notes

Construct represented by this measure (select best option)

Primary source of information for measure (check best one): [Note: Issue here is who is forming the content recorded in the measure. E.g., if a person fills out a form or responds to an interview, that person is the information source. If an observer rates or judges another person, however, it is the observer not the person observed, who is the source.]

1

☐

academic achievement

2

☐

attendance; tardiness

3

☒

attitudes about delinquency, personal conduct, police, etc.

4

☐

attitudes about interpersonal issues, family, peers, etc.

5

☐

attitudes about school, teachers, etc.

6

☐

behavioral problems checklist, etc.

7

☐

dropping out of school; graduating

8

☐

family functioning, communication, household chores, etc.

9

☐

juvenile justice system costs

10

☐

mood, anxiety, depression, emotionality, etc.

11

☐

noncriminal/non-delinquent disciplinary

12

☐

other

13

☐

particular

14

☐

peer relations, etc.

15

☐

perception of fairness

16

☐

reparation of harm

17

☐

restitution compliance

18

☐

self-esteem, self concept

19

☐

social skills

20

☐

community service

21

☐

1

☒

juveniles or victims themselves (e.g., self report, survey)

2

☐

front line service provider; therapist; caseworker

3

☐

program manager, administrator, agency staff, etc. (not front line)

4

☐

researchers acting directly as observers, raters, etc.

5

☐

other observers or participants (e.g., client families, employers)

6

☐

records, archives

7

☐

other

8

☐

cannot say

9

☐

not applicable

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Restorative Justice Programs for Youth Systematic Review

Dependent Variable (Outcome) Level Coding

Reference ID6619

Coder initial'samo

Creation date1/13/2017

Modification date1/13/2017

Dependent variable ID and label9

Positive attitude toward victim

Dependent variable type:

Delinquency

Non-Delinquency

Victim

Instructions

Measure

Delinquency

Non-Delinquency

Victim

Notes

Construct represented by this measure (select best option)

1

Attitudes toward juvenile offender

2

Embarrassment and shame

3

Forgiveness

4

Helpfulness of process

5

Just outcome

6

Mood, anxiety, depression, emotionality, etc.

7

Procedural justice composite measure

8

Safety and fear

9

Satisfaction

10

Trust

11

Accountability

12

Perception of fairness

13

Opinion/views considered

14

Other:

Primary source of information for measure (check best one): [Note: Issue here is who is forming the content recorded in the measure. E.g., if a person fills out a form or responds to an interview, that person is the information source. If an observer rates or judges another person, however, it is the observer not the person observed, who is the source.]

1

juveniles or victims themselves (e.g., self report, survey)

2

front line service provider; therapist; caseworker

3

program manager; administrator, agency staff, etc. (not front line)

4

researchers acting directly as observers, raters, etc.

5

other observers or participants (e.g., client families, employers)

6

records, archives

7

other

8

cannot tell

9

not applicable

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Restorative Justice Programs for Youth Systematic Review

Dependent Variable (Outcome) Level Coding

Reference ID

661

Coder initial's

amo

Creation date

1/13/2017

Modification date

1/13/2017

Dependent variable ID and label

9

Dependent variable type:

☒ Delinquency

☐ Non-Delinquency

Positive attitude toward victim

Victim

☐

Instructions

Measure

Delinquency

Non-Delinquency

Victim

Notes

Notes regarding this dependent variable

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID	Coder initial's	Creation date	Modification date	
86	amo	8/23/2016	3/6/2017	1
1	Condition 1 (treatment) ID	Restorative Justice Program		
2	Condition 2 (control) ID	Traditional processing		
1	Dependent variable ID	Survival time		
1	Effect Size ID (number sequential within study)	0.2952	Computed effect size	0.0857
		Computed effect size standard error		

Instructions

General

Means

Frequencies/Proportions

Regression

Other

Notes

Code all effect sizes of interest at baseline, posttest, and follow-up. Indicate the study ID, the treatment condition ID, the control condition ID, and the dependent variable ID. Give each effect size within a study an unique idea, numbering sequentially (1, 2, 3 ...).

There are several ways to compute effect sizes using the different tabs. ONLY USE ONE METHOD per effect size. If you have the raw means and also a regression coefficient for the same outcome from a model that adjusts for baseline differences, these are two different effect sizes. The different effect size computation methods are:

1. Means and standard deviations
2. Means and standard errors
3. Frequency of failures in each condition
4. Proportion of failures in each condition
5. Logistic regression coefficient for treatment effect dummy code
6. OLS unstandardized regression coefficient
7. OLS standardized regression coefficient
8. Independent samples t-test
9. Chi-square test (2 by 2, df = 1)
10. Point-biserial correlation coefficient
11. Phi correlation coefficient
12. Hand computation (e.g., using the online effect size calculator

You will see a result in the "computed effect size" field above the tabs when you have entered sufficient information to compute an effect size.

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Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID

Coder initial's

Creation date

Modification date

1

86

amo

8/23/2016

3/6/2017

1

Condition 1 (treatment) ID

Restorative Justice Program

2

Condition 2 (control) ID

Traditional processing

1

Dependent variable ID

Survival time

1

Effect Size ID (number sequential within study)

0.2952

Computed effect size

0.0857

Computed effect size standard error

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Effect size direction (indicate which group is favored, that is has the better outcome)

☒ 1 Treatment (condition 1)

☐ 2 Control (condition 2)

☐ 3 Neither (exactly equal)

☐ 4 Cannot tell

Type of effect size (i.e., baseline difference, first post treatment outcome measure, or a follow-up measure)

☐ 1 Baseline (pre-test)

☒ 2 Post-test

☐ 3 Follow-up

Effect reported by the authors as statistically significant.

☒ 0 No, not significant

☐ 1 Yes, significant

☐ 2 Not reported

☐ 9 Missing

Indicate the time in months from the start of the program (baseline) to the point of measurement in months. If reported in weeks, multiply by 4.3. Record as 999 if missing or cannot tell or 888 if not applicable.

Minimum; baseline to measurement

Mean; baseline to measurement

Maximum; baseline to measurement

Indicate the time in months from the end of the program to the point of measurement in months. This reflects the length of the follow-up. If reported in weeks, multiply by 4.3. Record as 999 if missing or cannot tell or 888 if not applicable..

Minimum; end of treatment to measurement

Mean; end of treatment to measurement

Maximum; end of treatment to measurement

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID

86

Coder initial's

amo

Creation date

8/23/2016

Modification date

3/6/2017

Condition 1 (treatment) ID

1

Condition 2 (control) ID

2

Dependent variable ID

1

Effect Size ID (number sequential within study)

1

Restorative Justice Program

Traditional processing

Survival time

Computed effect size

0.0857

Computed effect size standard error

0.2952

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Notes

Effect size based on means, standard deviations (or standard errors), and sample sizes.

Treatment (condition 1)

284

54.4

2.0

Control (condition 2)

267

43.9

2.3

Sample size

Mean

Standard deviation

Standard error (if no standard deviation)

Means adjusted for covariates (0=no; 1=yes; 9=cannot tell)

☒ 0

☐ 1

☐ 9

Page number of effect size data found

1070

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID	Coder initial's	Creation date	Modification date	
86	amo	8/23/2016	3/6/2017	1

1	Condition 1 (treatment) ID	Restorative Justice Program			
2	Condition 2 (control) ID	Traditional processing			
1	Dependent variable ID	Survival time			
1	Effect Size ID (number sequential within study)	0.2952	Computed effect size	0.0857	Computed effect size standard error

InstructionsGeneralMeansFrequencies/ProportionsRegressionOtherNotes

Effect size based on frequencies or proportions (success/failure on dependent variable; dependent variable must be dichotomous!)

Treatment (condition 1)	Control (condition 2)		
284	267		
	Sample size		
	Frequency of successes		
	Proportion (must be between 0 to 1, inclusively) of successes (only code this if raw frequencies not available)		
☐ 0	☐ 1	☐ 9	Proportions adjusted for covariates (0=no; 1=yes; 9=cannot tell)

1070Page number of effect size data found

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Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID	Coder initial's	Creation date	Modification date
86	amo	8/23/2016	3/6/2017
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1	Dependent variable ID	Survival time	
1	Effect Size ID (number sequential within study)	0.2952	0.0857
		Computed effect size	Computed effect size standard error

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Logistic Regression

284

Sample size treatment group

267

Sample size control group

Logistic regression coefficient

Standard error of regression coefficient

Odds ratio (if reported)

OLS Regression

284

Sample size treatment group

267

Sample size control group

Unstandardized regression coefficient

Standard regression coefficient

Standard error of regression coefficient

t-test for regression coefficient

Standard deviation for dependent variable

For OLS models, we need either the standardized or unstandardized regression coefficient and either the standard error or t-test. The standard deviation for the dependent variable is necessary for this computation to work.

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Page number of effect size data found

12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID	Coder initial's	Creation date	Modification date	
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1	Effect Size ID (number sequential within study)	0.2952	Computed effect size	0.0857
		Computed effect size standard error		

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Notes

Miscellaneous Effect Size Data. Only code if other forms of computing and effect size are not possible.

284	Sample size treatment group
267	Sample size control group
	Independent samples t-test
	Chi-square from a 2 by 2 table (df = 1)
	Correlation coefficient (point-biserial; scaled dependent variable)
	Correlation coefficient (phi; dichotomous dependent variable)

For use with David's online effect size calculator when other methods aren't possible.

	Standardized mean difference effect size computed by hand
	Standard error for standardized mean difference effect size computed by hand

Click here for DWB effect size calculator

1070	Page number of effect size data found
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12 FileMaker Database Screenshots

Restorative Justice Programs for Youth Systematic Review

Effect Size Level Coding

Reference ID	Coder initial's	Creation date	Modification date	
86	amo	8/23/2016	3/6/2017	1
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2	Condition 2 (control) ID	Traditional processing		
1	Dependent variable ID	Survival time		
1	Effect Size ID (number sequential within study)	0.2952	Computed effect size	0.0857
		Computed effect size standard error		

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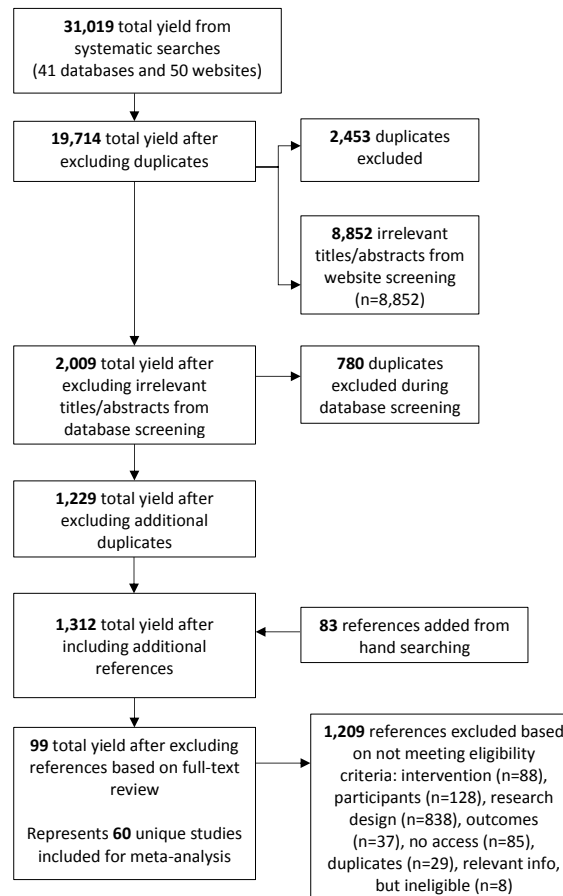
Other

Notes

Notes regarding computation of effect size

External file (such as a spreadsheet) that contains computations for effect sizes (right click, then select "insert file")

13 Flow Diagram for Search Process



14 Search notes

Table 14.1: Systematic Search Information

Field	Description
Search Date	January 5, 2016
Database/Website	Applied Social Science Index and Abstracts (ASSIA)/Social Sciences Full Text
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	1,078
Notes	Database no longer available through GMU; Social Sciences Full Text recommended instead and used for this search
Database/Website	Australian Institute of Criminology (AIC)
Search Date	January 5, 2016
Search String	youth, "restorative justice", evaluation
Yield	165
Notes	
Database/Website	CINCH (the Australian Criminology Database/Website) via Informit
Search Date	January 7, 2016
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR deviant OR student AND victim-offender OR mediation OR restorative justice OR peacemaking circles OR restitution OR reconciliation OR victim-offender conferencing OR victim-offender reconciliation OR victim offender dialogue OR restorative justice conferencing OR family group conferencing OR community group conferencing OR restorative group conferencing OR restorative justice circles OR repair of harm circles OR sentencing circles OR police caution OR restorative police caution AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR randomized control
Yield	838
Notes	Selected five databases to be searched at once: (1) Australian Public Affairs Full Text (APAF); (2) Family & Society Collection; (3) Humanities and Social sciences collection; (4) Literature and Culture Collection; (5) New Zealand Collection
Database/Website	Criminal Justice Abstracts
Search Date	January 7, 2016

(continued)

14 Search notes

Field	Description
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	1,422
Notes	
Database/Website	EconLit
Search Date	January 7, 2016
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	123
Notes	
Database/Website	First Search-Dissertation Abstracts
Search Date	January 7, 2016
Total hits: 658	
Notes	Could only search relevant database separately <i>Dissertations search string:</i> (youth OR child OR juvenile OR delinquent OR criminal OR victim OR deviant OR student) AND (victim-offender OR mediation OR restorative justice OR peacemaking circles OR restitution OR reconciliation OR victim-offender conferencing OR victim-offender reconciliation OR victim offender dialogue OR restorative justice conferencing OR family group conferencing OR community group conferencing OR restorative group conferencing OR restorative justice circles OR repair of harm circles OR sentencing circles OR police caution OR restorative police caution) AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR randomized control) Yield=124 <i>ArticlesFirst search string:</i> (youth OR child OR juvenile OR delinquent OR criminal OR victim OR deviant OR student) AND (restorative justice OR restitution OR victim-offender dialogue OR family group conferenc* OR victim-offender mediation OR reconciliation OR mediation OR peace circles OR peacemaking circles OR sentencing circles OR police caution OR restorative police caution) AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR randomized control) Yield=42 <i>ECO search string:</i> (youth OR child OR juvenile OR delinquent OR criminal OR victim OR deviant OR student) AND (restorative justice OR restitution OR victim-offender dialogue OR family group conferenc* OR victim-offender mediation OR reconciliation OR mediation OR peace circles OR peacemaking circles OR sentencing circles OR police caution OR restorative police caution) AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR randomized control) Yield=492

(continued)

14 Search notes

Field	Description
Database/Website	GoogleScholar
Search Date	January 8, 2016
Search String	youth OR juvenil* AND "restorative justice" OR restoration OR restitution OR "family group conferencing" OR "victim-offender mediation" AND outcome OR evaluat* OR experiment* OR effect*
Yield	108,000
Notes	Retrieved the first 1,000 hits or the first 50 pages (20 hits per page). Note: GoogleScholar interrupted the retrieval process because the retrieval process resembles an "automatic query." Will have to resume retrieval at another time. Below is the schedule of time to retrieve the first 1,000 references from GoogleScholar: 1/8/16: stopped at page 8; need to retrieve results from page 9 during next retrieval attempt. 1/8/16: resumed search at 3:05 PM; stopped at page 18, need to retrieve results from page 18 during next retrieval attempt. 1/11/16: resumed search at 2:38 PM; stopped at page 23, need to retrieve results from page 22 during next retrieval attempt. 1/12/16: resumed search at 12:33 PM; stopped at page 38, need to retrieve results from page 38 during next retrieval attempt. 1/13/16: resumed search; stopped at page 49, need to retrieve results from page 49 during next retrieval attempt. 1/14/16: completed search
Database/Website	HeinOnline
Search Date	January 8, 2016
Search String	youth AND juvenil* AND restorative justice AND family group conferenc* AND restorative police caution* AND eval*
Yield	97
Notes	Database originally reported 2,027 hits, but during the retrieval process, could only download 97 references; the subsequent pages did not load new results. Instead, received the following note: "no matching results found."
Database/Website	Jill Dando Institute of Crime Science (JDI)
Search Date	January 11, 2016
Search String	"restorative justice"
Yield	23
Notes	
Database/Website	Joanna Briggs Institute (JBI)
Search Date	January 11, 2016
Search String	youth
Yield	1
Notes	searched under registered systematic reviews; has a automatic filtering system as operates key terms are typed into the search field
Database/Website	Medline/Embase
Search Date	January 11, 2016
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	1,097
Notes	
Database/Website	National Criminal Justice Research Service (NCJRS)

(continued)

14 Search notes

Field	Description
Search Date	January 12, 2016
Search String	youth OR child OR juvenile AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	1,145
Notes	
Database/Website	Policy Archive
Search Date	January 12, 2016
Search String	juvenile justice
Yield	86
Notes	
Database/Website	PolicyFile
Search Date	January 12, 2016
Search String	juvenile and "restorative justice" or "family group conferencing" and experiment
Yield	1,721
Notes	Stopped at page 21 on 1/12/16 (still need to download references); Zotero download stopped working.
Database/Website	ProQuest Dissertations/Theses
Search Date	January 12, 2016
Search String	juvenil* AND "restorative justice" OR "family group conferenc*" AND eval*
Yield	1,972
Notes	
Database/Website	ProQuest Criminal Justice
Search Date	January 12, 2016
Search String	juvenile AND "restorative justice" OR "family group conferencing" AND evaluat*
Yield	1,224
Notes	
Database/Website	PsychINFO
Search Date	January 13, 2016
Search String	(youth OR child OR juvenile OR delinquent) AND Any Field : ("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*")AND Any Field : (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	1,782
Notes	
Database/Website	Public Affairs Information Service (PAIS International)

(continued)

14 Search notes

Field	Description
Search String	(youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student) AND ("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	184
Notes	Limited to English and German
Database/Website	PubMed
Search Date	January 13, 2016
Search String	((youth OR juvenile OR delinquent)) AND ("victim-offender dialogue" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	1,400
Notes	
Database/Website	RAND Documents
Search Date	January 13, 2016
Search String	juvenile
Yield	455
Notes	
Database/Website	Social Science Citation Index (SSCI)
Search Date	January 15, 2016
Search String	(TS=(youth OR juvenile OR delinquent) AND TS=("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND TS=(outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR "randomized control"))
Yield	595
Notes	restricted to English and German
Database/Website	Social Science Research Network (SSRN)
Search Date	January 15, 2016
Search String	restorative justice
Yield	493
Notes	
Database/Website	Social Services Abstracts
Search Date	January 14, 2016

(continued)

14 Search notes

Field	Description
Search String	(youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student) AND ("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	540
Notes	
Database/Website	Sociological Abstracts
Search Date	January 14, 2016
Search String	(youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student) AND ("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	1,336
Notes	
Database/Website	Worldwide Political Science Abstracts (WPSA)
Search Date	January 15, 2016
Search String	(youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student) AND ("victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*") AND (outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control")
Yield	214
Notes	
Database/Website	Association of Chief Police Officers (ACPO)/National Police Chiefs Council (NPCC)
Search Date	January 5, 2016
Search String	(via Google): youth OR juvenil* AND "restorative justice" OR "restorative police caution*" AND outcome OR evaluation site: http://www.npcc.police.uk/
Yield	2
Notes	ACPO replaced by the National Police Chiefs Council in 2015; performed a search of that website since ACPO as an organization and website was no longer in commission
Database/Website	Association of Chief Police Officers Scotland (ACPOS) now Police Scotland
Search Date	January 5, 2016
Search String	youth
Yield	1
Notes	ACPOS no longer in existence as of 2013; merged to form Police Scotland

(continued)

14 Search notes

Field	Description
Database/Website	Association of Police Authorities (APA)/ Association of Police and Crime Commissioners
Search Date	January 5, 2016
Search String	youth AND "restorative justice" AND evaluation
Yield	2
Notes	Possibly replaced by the Association of Police and Crime Commissioners (APCC); searched this organization's website instead
Database/Website	Australian Research Council Centre of Excellence in Policing and Security (CEPS)
Search Date	January 7, 2016
Search String	youth OR juvenile AND justice
Yield	2
Notes	
Database/Website	Canadian Police Research Centre (CPRC)
Search Date	January 5, 2016
Search String	n/a
Yield	n/a
Notes	could not access this website
Database/Website	European Forum for Restorative Justice
Search String	juvenile
Yield	6
Notes	
Database/Website	Her Majesty's Inspectorate of Constabulary (HMIC)
Search Date	January 8, 2016
Search String	youth OR juvenil* AND restorative justice OR family group conferenc* OR restitution OR restoration AND eval* AND experi*
Yield	521
Notes	
Database/Website	Home Office (UK)
Search Date	January 11, 2016
Search String	youth OR juvenil* AND restorative justice OR restoration OR victim-offender dialogue "restorative police cautioning" OR family group conferenc* AND evaluation OR outcome OR experi*
Yield	427
Notes	22 pages total from the website
Database/Website	Ministry of Justice (UK)
Search Date	January 11, 2016
Search String	"restorative justice" OR "restorative police caution*"
Yield	50
Notes	Search appeared to be a bit quirky; could only save first five pages (50 hits), despite the search returning "2,314" hits
Database/Website	National Institute of Justice (NIJ)
Search Date	January 12, 2016
Search String	juvenile AND restorative justice
Yield	146
Notes	used advanced search field and searched publications and multimedia in full-text; saved pages from NIJ Journal, NIJ.gov, funded projects, and publication abstracts
Database/Website	(PFICJR)
Search Date	January 7, 2016

(continued)

14 Search notes

Field	Description
Search String	youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control"
Yield	462
Notes	Accessible through the www.restorativejustice.org and only searched within the library and filtered by kind of document: evaluation/study and report
Database/Website	Office of Juvenile Justice and Delinquency Prevention (OJJDP)
Search Date	January 12, 2016
Search String	restorative justice
Yield	12
Notes & search filter applied	programs and publications only
Database/Website	Restorative Justice Council
Search Date	January 14, 2016
Search String	juvenil* OR "restorative justice" OR "family group conferencing" OR eval*
Yield	295
Notes	30 pages total
Database/Website	Scottish Institute for Policing Research (SIPR)
Search Date	January 14, 2016
Search String	restorative justice
Yield	42
Notes	
Database/Websites:	
U.S. state juvenile justice agencies and court services	
Search Date	January 18, 2016 - January 22, 2016
Yield	(all 50 states): 8,735
Notes	Alabama Juvenile Justice Agency (via Google): restorative justice site:http://dys.alabama.gov/, Yield = 1 Court (via Google): juvenile AND restorative justice site:http://juv.alacourt.gov/, Yield = 2 Alaska Juvenile Justice Agency/court (via Google): restorative justice site:http://dhss.alaska.gov/djj/, Yield = 55 Arizona Juvenile Justice Agency (via Google): "restorative justice" site:http://www.azdjv.gov, Yield = 34 Court: juvenile AND restorative justice, Yield = 12 Arkansas Juvenile Justice Agency/court: restorative justice, Yield = 23 California Juvenile Justice Agency: "restorative justice", Yield = 52 Court: juvenile OR delinquent OR criminal AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 1,040

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14 Search notes

Field	Description
	Colorado <i>Juvenile Justice Agency/Court</i>: “restorative justice”, Yield: 1 Connecticut <i>Juvenile Justice Agency</i>: “restorative justice”, Yield = 54 <i>Court</i>: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND “victim-offender” OR mediation OR “restorative justice” OR “peacemaking circles” OR restitution OR reconciliation OR “victim-offender conferencing” OR “victim-offender reconciliation” OR “victim offender dialogue” OR “restorative justice conferencing” OR “family group conferencing” OR “community group conferencing” OR “restorative group conferencing” OR “restorative justice circles” OR “repair of harm circles” OR “sentencing circles” OR “police caution*” OR “restorative police caution*” AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR “randomized control”, Yield = 382 District of Columbia <i>Juvenile Justice Agency</i>: restorative justice, Yield = 5 <i>Court</i>: juvenile and “restorative justice”, Yield = cannot determine Delaware <i>Juvenile Justice Agency</i>: juvenile, Yield = 9 <i>Court</i>: juvenile OR delinquent AND “victim-offender” OR mediation OR “restorative justice” OR “peacemaking circles” OR restitution OR reconciliation OR “victim-offender conferencing” OR “victim-offender reconciliation” OR “victim offender dialogue” OR “restorative justice conferencing” OR “family group conferencing” OR “community group conferencing” OR “restorative group conferencing” OR “restorative justice circles” OR “repair of harm circles” OR “sentencing circles” OR “police caution*” OR “restorative police caution*” AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR “randomized control” site:http://courts.delaware.govsite:http://courts.delaware.gov, Yield = 743 Florida <i>Juvenile Justice Agency/Court</i>: “restorative justice”, Yield = 476 Georgia <i>Juvenile Justice Agency</i>: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND “victim-offender” OR mediation OR “restorative justice” OR “peacemaking circles” OR restitution OR reconciliation OR “victim-offender conferencing” OR “victim-offender reconciliation” OR “victim offender dialogue” OR “restorative justice conferencing” OR “family group conferencing” OR “community group conferencing” OR “restorative group conferencing” OR “restorative justice circles” OR “repair of harm circles” OR “sentencing circles” OR “police caution*” OR “restorative police caution*” AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR “randomized control”, Yield = 10 <i>Court</i>: juvenile, Yield = 17 Hawai’i <i>Juvenile Justice Agency</i>: restorative justice, Yield = 1 <i>Court</i>: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND “victim-offender” OR mediation OR “restorative justice” OR “peacemaking circles” OR restitution OR reconciliation OR “victim-offender conferencing” OR “victim-offender reconciliation” OR “victim offender dialogue” OR “restorative justice conferencing” OR “family group conferencing” OR “community group conferencing” OR “restorative group conferencing” OR “restorative justice circles” OR “repair of harm circles” OR “sentencing circles” OR “police caution*” OR “restorative police caution*” AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR “randomized control”, Yield = 100 Idaho <i>Juvenile Justice Agency</i>: restorative justice, Yield = 0 <i>Court</i>: juvenile AND restorative justice, Yield = 25 Illinois <i>Juvenile Justice Agency/Court</i>: restorative justice, Yield = 3 Indiana <i>Juvenile Justice Agency</i>: juvenile AND restorative justice, Yield = 102 <i>Court</i>: restorative justice, Yield = 10 Iowa <i>Juvenile Justice Agency/Court</i>: juvenile AND restorative justice, Yield = 46 Kansas <i>Juvenile Justice Agency</i>: restorative justice, Yield = 10 <i>Court</i>: juvenile AND restorative justice, Yield = 497

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14 Search notes

Field	Description
	Kentucky Juvenile Justice Agency: restorative justice, Yield = 3 <i>Court:</i> "restorative justice", Yield = cannot determine
	Louisiana Juvenile Justice Agency/Court: restorative justice, Yield = 2
	Maine Juvenile Justice Agency: juvenile OR delinquent OR youth AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control" site:www.maine.gov/corrections, Yield = 240 <i>Court:</i> same search engine as above; produced same results
	Maryland Juvenile Justice Agency: restorative justice, Yield = 3 <i>Court:</i> juvenile AND restorative justice, Yield = 26
	Massachusetts Juvenile Justice Agency: juvenile AND restorative justice, Yield = 13 <i>Court:</i> restorative justice, Yield = 6
	Michigan Juvenile Justice Agency: juvenile AND restorative justice, Yield = 13 <i>Court:</i> restorative justice, Yield = 21
	Minnesota Juvenile Justice Agency: restorative justice, Yield = 15 <i>Court:</i> restorative justice, Yield = 82
	Mississippi Juvenile Justice Agency: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 263 <i>Court:</i> restorative justice, Yield = 1
	Missouri Juvenile Justice Agency: restorative justice, Yield = 4 <i>Court:</i> restorative justice, Yield = 35
	Montana Juvenile Justice Agency: juvenile AND restorative justice, Yield = 231 <i>Court:</i> juvenile AND restorative justice, Yield = 242
	Nebraska Juvenile Justice Agency: juvenile AND restorative justice, Yield = 19 <i>Court:</i> n/a; search field did not return any results
	Nevada Juvenile Justice Agency: juvenile restorative justice, Yield = 65 <i>Court(via Google):</i> juvenilesite:http://www.nvd.uscourts.gov/, Yield = 4
	New Hampshire Juvenile Justice Agency (via Google): juvenile AND restorative justice site:http://www.dhhs.nh.gov/djjs/, Yield = 1 <i>Court (via Google):</i> juvenile AND restorative justice site:http://www.courts.state.nh.us, Yield = 5
	New Jersey Juvenile Justice Agency/Court: juvenile AND "restorative justice", Yield = 57
	New Mexico Juvenile Justice Agency: juvenile AND restorative justice, Yield = 3 <i>Court (via Google):</i> restorative justice site:http://www.nmcourt.fed.us, Yield = 0

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14 Search notes

Field	Description
	New York Juvenile Justice Agency: youth OR child OR juvenile OR delinquent OR criminal OR victim OR deviant OR student AND victim-offender OR mediation OR restorative justice OR peacemaking circles OR restitution OR reconciliation OR victim-offender conferencing OR victim-offender reconciliation OR victim offender dialogue OR restorative justice conferencing OR family group conferencing OR community group conferencing OR restorative group conferencing OR restorative justice circles OR repair of harm circles OR sentencing circles OR police caution OR restorative police caution AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR randomized control, Yield = 4 Court: juvenile AND restorative justice, Yield = 72 North Carolina Juvenile Justice Agency/Court: juvenile AND restorative justice, Yield = 52 North Dakota Juvenile Justice Agency: juvenile AND restorative justice, Yield = 12 Court (via Google): juvenile AND restorative justice site:http://www.ndcourts.govcourt, Yield = 63 Ohio Juvenile Justice Agency: juvenile AND restorative justice, Yield = 71 Court: juvenile AND restorative justice, Yield = 13 Oklahoma Juvenile Justice Agency/Court: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 102 Oregon Juvenile Justice Agency: juvenile AND "restorative justice" AND evaluation, Yield = 52 Court: juvenile AND restorative justice, Yield = 8 Pennsylvania Juvenile Justice Agency/Court: juvenile AND "restorative justice" AND evaluation, Yield = 336 Rhode Island Juvenile Justice Agency: juvenile AND restorative justice AND evaluation, Yield = 117 Court (via Google): restorative justice site:https://www.courts.ri.gov, Yield = 2 South Carolina Juvenile Justice Agency (via Google): juvenile AND restorative justice site:http://www.state.sc.us/djj/, Yield = 80 Court: juvenile, Yield = 422 South Dakota Juvenile Justice Agency: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 67 Court: juvenile AND restorative justice, Yield = 4 Tennessee Juvenile Justice Agency: juvenile, Yield = 27 Court: restorative justice, Yield = 3

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14 Search notes

Field	Description
	Texas Juvenile Justice Agency: restorative justice, Yield = 18 <i>Court:</i> youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 977 Utah Juvenile Justice Agency: restorative justice, Yield = 6 <i>Court:</i> juvenile AND restorative justice, Yield = 92 Vermont Juvenile Justice Agency: juvenile AND restorative justice, Yield = 12 <i>Court:</i> juvenile AND restorative justice Yield = 7 Virginia Juvenile Justice Agency: restorative justice, Yield = 24 <i>Court:</i> juvenile AND restorative justice, Yield = 83 Washington Juvenile Justice Agency/Court: juvenile AND restorative justice, Yield = 26 West Virginia Juvenile Justice Agency: restorative justice, Yield = 9 <i>Court:</i> youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 716 Wisconsin Juvenile Justice Agency: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 257 <i>Court:</i> restorative justice, Yield = 22 Wyoming Juvenile Justice Agency: youth OR child OR juvenile OR delinquent OR criminal OR victim OR devian? OR student AND "victim-offender" OR mediation OR "restorative justice" OR "peacemaking circles" OR restitution OR reconciliation OR "victim-offender conferencing" OR "victim-offender reconciliation" OR "victim offender dialogue" OR "restorative justice conferencing" OR "family group conferencing" OR "community group conferencing" OR "restorative group conferencing" OR "restorative justice circles" OR "repair of harm circles" OR "sentencing circles" OR "police caution*" OR "restorative police caution*" AND outcome OR evaluate OR evaluation OR effect OR effectiveness OR recidivism OR experiment OR quasi OR assessment OR RCT OR "randomized control", Yield = 13 <i>Court:</i> juvenile AND restorative justice, Yield = 2
Database/Website	Swedish National Council for Crime Prevention
Search Date	January 12, 2016
Search String	juvenile

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14 Search notes

Field	Desription
Yield Notes	9