THE EFFECTIVENESS OF RESTORATIVE JUSTICE PRACTICES: A META-ANALYSIS

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This article provides an empirical synthesis of the existing literature on the effectiveness of restorative justice practices using meta-analytic techniques. The data were aggregated from studies that compared restorative justice programs to traditional nonrestorative approaches to criminal behavior. Victim and offender satisfaction, restitution compliance, and recidivism were selected as appropriate outcomes to adequately measure effectiveness. Although restorative programs were found to be significantly more effective, these positive findings are tempered by an important self-selection bias inherent in restorative justice research. A possible method of addressing this problem, as well as directions for future research, are provided.

Keywords: *restorative justice; recidivism; meta-analysis; program effectiveness*

Current activity at governmental and community levels suggests that restorative justice, in its many forms, is emerging as an increasingly important element in mainstream criminological practice. Although first discussed in the 1970s by Barnett (1977) and Eglash (1977) in the context of restitution, restorative justice has been more clearly integrated into criminological thinking through such works as Braithwaite (1989), Marshall (1985), Umbreit (1994b), and Zehr (1990). Rather than focusing on the traditional rehabilitation versus retribution debate, many researchers and policy makers now consider restorative justice and, more precisely the concept of restoration, as a valid third alternative (Zehr, 1990). Numerous countries have

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adopted restorative approaches including Canada, England, Australia, Scotland, New Zealand, Norway, the United States, Japan, and several European countries (Hughes & Mossman, 2001).

Despite the increased attention given to restorative justice, the concept still remains somewhat problematic to define as numerous responses to criminal behavior may fall under the so-called restorative umbrella. The term has been used interchangeably with such concepts as community justice, transformative justice, peacemaking criminology, and relational justice (Bazemore & Walgrave, 1999). Although a universally accepted and concise definition of the term has yet to be established, Tony F. Marshall's (1996) definition appears to encompass the main principles of restorative justice: "Restorative justice is a process whereby all the parties with a stake in a particular offence come together to resolve collectively how to deal with the aftermath of the offence and its implications for the future" (p. 37; cf. Braithwaite, 1999, p. 5).

The fundamental premise of the restorative justice paradigm is that crime is a violation of people and relationships (Zehr, 1990) rather than merely a violation of law. The most appropriate response to criminal behavior, therefore, is to repair the harm caused by the wrongful act (Law Commission, 2000). As such, the criminal justice system should provide those most closely affected by the crime (the victim, the offender, and the community) an opportunity to come together to discuss the event and attempt to arrive at some type of understanding about what can be done to provide appropriate reparation.

According to Llewellyn and Howse (1998), the main elements of the restorative process involve voluntariness, truth telling, and a face-to-face encounter. Consequently, the process should be completely voluntary for all participants; the offender needs to accept responsibility for the harm and be willing to openly and honestly discuss the criminal behaviour; and the participants should meet in a safe and organized setting to collectively agree on an appropriate method of repairing the harm.

Models of restorative justice can be grouped into three categories: circles, conferences, and victim-offender mediations. Although somewhat distinct in their practices, the principles employed in each model remain similar. A restorative justice program may be initiated at any point in the criminal justice system and need not be used simply for diversionary purposes. Currently, there are five identified entry points into the criminal justice system where offenders may be referred to a restorative justice program:

- Police (precharge)
- Crown (postcharge)
- Courts (presentence)
- Corrections (postsentence)
- Parole (prerevocation)

Proponents of restorative justice claim that the process is beneficial to victims and offenders by emphasizing recovery of the victim through redress, vindication, and healing and by encouraging recompense by the offender through reparation, fair treatment, and habilitation (Van Ness & Strong, 1997). In the process of coming together to restore relationships, the community is also provided with an opportunity to heal through the reintegration of victims and offenders (Llewellyn & Howse, 1998).

Despite the intuitive appeal of restorative justice, it is imperative to fully evaluate the impact of this approach on several important outcomes. Previous evaluation research focusing on this area has ranged from purely anecdotal accounts to more rigorous designs using comparison groups and, in some cases, random assignment into control and/or treatment groups (Bonta, Wallace-Capretta, & Rooney, 1998). These studies have examined the impact of restorative justice on victim and offender satisfaction, restitution compliance, recidivism, procedural fairness, and several others.

Given that the field of restorative justice research has been maturing, there existed a need to aggregate the present body of empirical knowledge. In this regard, several authors have provided comprehensive literature reviews of this area of research (Braithwaite, 1999; Latimer & Kleinknecht, 2000; Marshall, 1999). Summarizing the research through narrative or qualitative approaches, however, may fail to objectively analyze the available data and draw the appropriate conclusions. Cooper and Rosenthal (1980) directly tested the reliability of synthesizing literature through narrative reviews by providing test participants with a set of seven studies that measured the relationship between two variables. Despite the fact that the set of studies showed a clear statistically significant relationship between the variables, 73% of the reviewers found limited or no support for the hypothesis. This suggested that traditional narrative reviews suffer a considerable loss of power and that the incidence of Type II errors may be common. In addition, the criteria for selecting literature for a narrative review are rarely systematic and consistent. The introduction of meta-analytic techniques, however, has marked a major step forward in summarizing research by providing a more objective method of aggregating knowledge.

META-ANALYSIS

Similar to traditional quantitative research methods, the meta-analytic process involves three basic steps:

- Literature review: identifying and gathering relevant research studies
- Data collection: extracting data through predetermined coding procedures
- Data analysis: analyzing the aggregated data using statistical techniques

A meta-analysis can be understood as a statistical analysis of a collection of studies that aggregate the magnitude of a relationship between two or more variables (Glass, McGaw, & Smith, 1981). These studies may differ on several important characteristics such as operationalization of independent and dependent variables, sample size, sample selection techniques, and so on. Meta-analytic statistics can describe the typical strength of the effect under investigation, the degree of statistical significance, the variability, and provide the opportunity to explore and identify potential moderating variables. The outcome of a meta-analysis is an effect size, which can be interpreted as the estimated effect of the independent variable on the dependent variable. For example, an average effect size estimate of +.10 translates into the independent variable accounting for a 10% change in the dependent variable (Rosenthal, 1991).

Meta-analytic reviews are generally regarded as a superior method of research synthesis compared to traditional narrative reviews as the former are "more systematic, more explicit, more exhaustive, and more quantitative" (Rosenthal, 1991, p. 17). Meta-analytic techniques have been used across such diverse fields as education, medicine, and the social sciences (Lipsey & Wilson, 1993). In the area of criminal justice research in particular, meta-analytic studies have investigated the prediction (Bonta, Law, & Hanson, 1998; Dowden & Brown, 2002; Gendreau, Little, & Goggin, 1996; Hanson & Bussière, 1998) and treatment (Andrews et al., 1990; Dowden & Andrews, 1999, 2000; Latimer, 2001; Lipsey, 1995; Whitehead & Lab, 1989) of criminal behavior.

Critics argue that one of the major limitations of meta-analytic techniques is that the sampling procedures are biased in favor of including predominantly published studies. It is surmised that the probability of publishing a study is increased by the statistical significance of the results so that published studies are not actually representative of the entire body of research that has been conducted in that area. Consequently, a calculated effect size, based exclusively on published studies, may be overestimating the relationship. Coined the "file drawer problem" (Rosenthal, 1991, p. 103), this sug-

gests that if unpublished studies were included in the meta-analysis, the effect size estimate would be smaller.

A preliminary meta-analysis of programs that contained elements of restorative justice was conducted by Bonta et al. (1998) and exclusively focused on their role in reducing offender recidivism. The results revealed that these programs yielded mild reductions in reoffending (+.08). However, the authors used a very broad operational definition of *restorative justice* as they included court-ordered restitution and community service programs. This definition is somewhat problematic as it fails to incorporate some of the fundamental principles of restorative justice—namely, the voluntary nature of offender and victim participation and the face-to-face encounter. A need, therefore, existed to quantitatively aggregate the findings of the literature using a more precise definition of restorative justice.

METHOD

Following the techniques of Rosenthal (1991), a meta-analysis was designed to test the effectiveness of restorative justice practices. One of the major issues in conducting this form of research is agreeing on a definition of *restorative justice*. Generally, it is much easier to identify a nonrestorative approach than it is to provide a precise definition of what constitutes restorative justice. For the purpose of this meta-analysis, the following operational definition was developed: Restorative justice is a voluntary, community-based response to criminal behavior that attempts to bring together the victim, the offender, and the community, in an effort to address the harm caused by the criminal behavior.

Although this may be open to debate, an operational definition is necessary for the purposes of conducting research. Therefore, for the current meta-analysis, programs that contained so-called restorative elements, such as restitution or community service, but did not attempt to bring together the victim, the offender, and the community were not considered. This definition provided us with a guide for the study selection process and ensured that we were examining a consistent response to criminal behavior.

We also needed to identify appropriate outcomes that were measurable and linked directly to the goals of restorative justice. Although several outcome measures have been used, we selected victim and offender satisfaction, recidivism, and restitution compliance as these were the only ones that were sufficiently available to be subjected to a meta-analysis. Furthermore, these four outcomes are clear and quantifiable determinants of the effectiveness of restorative justice.

LITERATURE REVIEW: STUDY IDENTIFICATION CRITERIA

To gather eligible studies for the meta-analysis, a comprehensive search was conducted on the restorative justice literature over the past 25 years. The studies were primarily drawn from the Internet, social science journals, and governmental and nongovernmental reports. A secondary search was conducted using the bibliographies of the identified studies and by contacting researchers active in the field to identify new, unpublished and/or undiscovered research. An explicit set of criteria was established to select studies for inclusion in the meta-analysis:

1. The study evaluated a restorative justice program that fell within our working definition.
2. The study used a control group or a comparison group that did not participate in a restorative justice program.
3. At least one of the following four outcomes was reported for the treatment and control and/or comparison group: recidivism, victim satisfaction, offender satisfaction, and/or restitution compliance.
4. Sufficient statistical information was reported to calculate an effect size.

DATA COLLECTION: CODING PROCEDURES

The standardized information contained below (Table 1) was drawn from each study using a predesigned coding manual. In designing a coding manual, the definition of certain variables can be problematic. For example, several studies operationalized recidivism differently. In keeping with past meta-analytic reviews of the broader criminal justice literature, we accepted multiple definitions of recidivism (i.e., a new criminal conviction, a new criminal charge, pre- and/or posttest offending). We also accepted two definitions of *restitution compliance* (proportion of offenders who repaid their restitution and proportion of total restitution dollars repaid by offenders).

For an overall mean effect size, in cases where multiple control and/or comparison groups were used in a single study, we combined the results to generate a single effect size for each program. In addition, where multiple follow-up periods were reported in a single study, we selected the longest at-risk period. To examine the impact of follow-up length and the use of different control and/or comparison groups, we did, however, also code multiple effect sizes for each program.

To effectively compare victim and offender satisfaction between restorative and traditional approaches, a binary satisfaction variable was created. This was achieved by coding positive measures of satisfaction as satisfied

TABLE 1: Primary Variables in Meta-Analysis

Research article information
Year of the study
Author(s) of the study
Type of publication
Country in which research was conducted
Program characteristics
Type of restorative justice program
Entry point in the criminal justice system
Training, selection criteria, experience, and educational background of the mediator
Eligibility criteria for offender participation
Existence of training manuals or procedural guidelines
Participant characteristics
Criminal history of offenders
Offence types
Age, gender, and ethnicity of offenders
Victim-offender relationship
Outcome measures
Recidivism rates
Victim satisfaction rates
Offender satisfaction rates
Restitution compliance rates
Methodological characteristics
Sample size
Random assignment to control and/or treatment groups
Length of follow-up for recidivism
Characteristics of control and/or comparison group
Use of an independent evaluator

whereas neutral and negative responses were collapsed into an unsatisfied category. For example, if a study employed a 5-point scale to measure satisfaction (i.e., very satisfied, somewhat satisfied, neutral, somewhat dissatisfied, very dissatisfied) we selected the top two categories as indicating satisfaction and considered the last three as unsatisfied.

In certain studies, the actual number of victims was not indicated; however, the study reported the percentage of satisfied versus unsatisfied victims. In these cases, we assumed the number of victims was equal to the number of offenders to calculate an effect size. In meta-analytic work, there is usually a trade-off between the comprehensiveness of the research and the precision of the coding techniques because of the reporting practices contained in most studies.

To test the reliability of the coding procedures, a second individual coded six randomly selected studies containing a total of 15 effect sizes. The general rate of agreement between the coders ranged from 47% to 100%, with an

overall rate of agreement of 91%. In cases of coder disagreement, both coders discussed the discrepancy until a consensus was reached, and this decision was then entered as the final code. Those variables that fell below 80% agreement were not included in the analysis.

DATA ANALYSIS: EFFECT SIZE CALCULATIONS

The relationship between participation in a restorative justice program and each of the four outcomes (recidivism, victim satisfaction, offender satisfaction, and restitution compliance) was calculated from the raw statistics reported within each study. The phi coefficient (Pearson's *r* product–moment correlation applied to dichotomous data) was used as the effect size estimate. If the necessary data were not contained in an individual study, but a nonsignificant relationship between participation in a restorative justice program and the outcome was reported, the effect size was recorded as zero.

When the effect sizes from each of the studies were calculated, we conducted a series of analyses across each of the four outcome measures of interest. First, the overall mean effect size, along with the corresponding confidence intervals and standard deviation, was calculated. It should be noted that the weighted and unweighted mean effect sizes were calculated; however, only the unweighted estimates were used in interpreting the results and in the moderator analyses listed below. This was done because, as stated previously, we had to estimate the actual number of victims, thus reducing the reliability of the weighted estimates. Furthermore, the weighted mean effect sizes were only marginally lower or higher than the unweighted effect sizes and would not have made a significant difference to the results of the analysis.

We also determined whether the overall difference between the restorative programs and the nonrestorative control and/or comparison groups was statistically significant by conducting a one-sample *t* test. This determines if the mean effect size is significantly different from zero (a zero effect size would indicate that participation in restorative justice had no effect on the subsequent outcomes). Additional analyses were conducted to explore whether certain variables such as demographic or study characteristics had a moderating impact on effect size magnitude. For example, if adequate information was available, we explored whether the age of the study sample (adult vs. youth) had a significant effect on program outcome. This provided us with a mechanism whereby specific program impacts could be isolated for further study.

TABLE 2: Descriptive Program and/or Study Characteristics

Variable	*Frequency (%)*
Restorative justice model	
Conferencing	8 (22.9)
Victim offender mediation	27 (77.1)
Entry point	
Precharge	7 (20.0)
Postcharge	6 (17.1)
Presentence	1 (2.9)
Postsentence	1 (2.9)
Mixed	20 (57.1)
Outcome measure	
Victim satisfaction	13 (19.7)
Offender satisfaction	13 (19.7)
Restitution compliance	8 (12.1)
Recidivism	32 (48.5)
Gender	
Predominantly male (> 70%)	33 (94.3)
Mixed	2 (5.7)
Ethnicity	
Predominantly White (> 70%)	14 (40.0)
Other	2 (5.7)
Mixed and/or unspecified	19 (54.3)
Age group	
Adult	9 (25.7)
Youth	26 (74.3)
Study source	
Published	10 (45.5)
Unpublished	12 (54.5)

RESULTS

Twenty-two unique studies that examined the effectiveness of 35 individual restorative justice programs generated 66 effect sizes. A summary of specific study characteristics is presented in Table 2. It should be noted that the frequencies presented in Table 2 are based on the 35 programs with the exception of the type of outcome measure and study source, which are based on 66 effect sizes and 22 unique studies, respectively.

The vast majority of the effect sizes were derived from programs that targeted predominantly male (94%), young (74%) offenders. It is interesting to note, a large proportion of the effect sizes were drawn from studies that were not published in peer-reviewed academic journals (55%), which, as discussed previously, is typically not the case in meta-analytic work. As shown in Table 2, studies commonly included one or more of the following outcome

measures: victim satisfaction, offender satisfaction, restitution compliance, and recidivism reduction. Each of these issues will be discussed accordingly in the following subsections.

VICTIM SATISFACTION

The overall mean effect size for the 13 tests of treatment that explored the impact of restorative justice programming on victim satisfaction was +.19 (*SD* = .18) with a 95% confidence interval (CI) of +.30 to +.08. Although the effect sizes ranged from +.44 to –.19, the latter was the only negative value found in the distribution. In other words, participation in a restorative justice program resulted in higher victim satisfaction ratings when compared to a comparison group in all but one of the 13 programs examined. It should be noted that the one negative result was found in the only program that operated at the postsentence (or corrections) entry point. Compared to victims who participated in the traditional justice system, victims who participated in restorative processes were significantly more satisfied, $t(12) = 3.89$, $p < .01$.

OFFENDER SATISFACTION

The overall mean effect size for the 13 tests of the impact of restorative justice programming on offender satisfaction was +.10 (*SD* = .28) and the effect sizes ranged from +.31 to –.71. Although offenders who participated in restorative justice programs displayed higher satisfaction with the process than their comparisons, the one-sample *t* test indicated that this difference was not statistically significant. The 95% CI for these values included zero, which further decreased our confidence that these programs have any discernible impact on offender satisfaction.

This conclusion is tempered, however, by the finding that although there were two negative effect sizes contributing to this result, the –.71 was a clear outlier. Moreover, given that the sample size contributing to the outlier was extremely small (*N* = 7), we removed this effect size from the analysis. This increased the mean effect size to +.17 and substantially reduced the standard deviation (*SD* = .13). Furthermore, and more important, removal of this study resulted in the CI not including zero, thus suggesting that these programs have a moderate-to-weak positive impact on offender satisfaction. The difference in offender satisfaction between restorative and nonrestorative participation also becomes significant, $t(11) = 4.52$, $p < .01$. It is interesting to note, the –.71 effect size was drawn from the same postsentence entry point program as the only negative victim satisfaction effect size.

RESTITUTION COMPLIANCE

One of the potential advantages of a restorative justice approach is that it could be more effective in ensuring offender compliance with restitution agreements. This would be a significant contribution as the victims would have a greater likelihood of receiving compensation for the harm caused by the criminal activity and the offenders would be actively accepting responsibility.

Only eight studies examined the impact of restorative justice programming on restitution compliance. Although this number may seem small, it may have been, in part, due to the inclusion criteria for this meta-analysis (i.e., the study had to utilize a comparison group). Overall, the mean effect size of +.33 (SD = .24) was quite high, indicating that offenders who participated in restorative justice programs tended to have substantially higher compliance rates than offenders exposed to other arrangements. Furthermore, there was a great deal of variability in the effect sizes found in these studies, with values ranging from +.63 to –.02. Compared to the comparison and/or control groups not participating in a restorative justice program, offenders in the treatment groups were significantly more likely to complete restitution agreements, $t(7) = 3.87$, $p < .01$.

RECIDIVISM

Arguably, one of the most important outcome variables for any form of criminal justice intervention is recidivism. The overall mean effect size for the 32 tests that examined the effectiveness of restorative justice programming in reducing offender recidivism was +.07 (SD = .13) with a 95% CI of +.12 to +.02. Although the effect sizes ranged from +.38 to –.23, more than two thirds of the effect sizes were positive (72%). In other words, restorative justice programs, on average, yielded reductions in recidivism compared to nonrestorative approaches to criminal behavior. In fact, compared to the comparison and/or control groups who did not participate in a restorative justice program, offenders in the treatment groups were significantly more successful during the follow-up periods, $t(31) = 2.88$, $p < .01$.

MODERATOR ANALYSIS

Given the relatively wide range of effect sizes, additional analyses were conducted to explore whether characteristics of the study sample or methodological considerations could explain this variability. Initially we had hoped to explore a relatively large number of potential moderators such as gender,

ethnicity, criminal history, offense type, facilitator characteristics, and so on. Unfortunately, the relative homogeneity of the offenders used in the studies, as well as the large amount of missing data, rendered many of these analyses untenable. Moreover, because of the low number of restitution compliance effect sizes and the offender satisfaction outlier issue, we only conducted moderating analyses on victim satisfaction and recidivism using the following six variables: random assignment, offender age, publication source, restorative justice model, entry point, and control and/or comparison group type.

The results, however, did not yield any significant between-group differences. One noteworthy difference, albeit not statistically significant, was that for victim satisfaction and recidivism the mean effect sizes from published peer-reviewed studies (+.30 and +.12) were noticeably higher than the mean effect sizes found in unpublished sources (+.16 and +.02). Although this lends support to the file-drawer criticism of meta-analytic work, this problem has been addressed in the current meta-analysis by conducting searches of governmental and nongovernmental reports, graduate theses, and dissertations and by directly contacting researchers active in the field for unpublished research.

DISCUSSION

Generally, compared to traditional nonrestorative approaches, restorative justice was found to be more successful at achieving each of its four major goals. In other words, based on the findings of the current meta-analysis, restorative justice programs are a more effective method of improving victim and/or offender satisfaction, increasing offender compliance with restitution, and decreasing the recidivism of offenders when compared to more traditional criminal justice responses (i.e., incarceration, probation, court-ordered restitution, etc.). In fact, restorative programs were significantly more effective than these approaches across all four outcomes (when the offender satisfaction outlier is excluded).

SELF-SELECTION BIAS

The positive results of this meta-analysis are mitigated, however, by the self-selection bias evident in controlled outcome studies on restorative justice programs. Restorative justice, by its very nature, is a voluntary process. This creates a treatment group of participants (offenders and victims) who have chosen to participate in the program and may, therefore, be more moti-

vated than the control group. This concern is elevated by the high rate of attrition within many of the studies in the current meta-analysis. McCold and Wachtel (1998), for example, found clear differences in the recidivism rates of restorative justice participants (20%) versus individuals who refused participation in the program (48%) versus the comparison group (35%). In fact, these authors argued that there was no treatment effect on recidivism from participation in restorative justice beyond a self-selection effect.

Self-selection bias is an inherent problem in restorative justice research as it is not possible to truly randomly assign participants to treatment and control conditions. When an individual is forced to participate in a restorative justice program, most would argue that the program is no longer truly restorative. Given this, we believe that an alternative method of determining the effectiveness of restorative justice is necessary. We recommend administering questionnaires designed to measure participants' motivation prior to program participation. This would allow researchers to examine the motivation of the control group, restorative justice participants, and those who refused participation. This type of research design would provide a comparison of highly motivated, moderately motivated, and unmotivated individuals in each group. If the satisfaction or recidivism rates, for example, were improved in the restorative justice group, and motivation was controlled for in the analysis, we would be more convinced that there is a treatment effect from participation in restorative justice processes.

Notwithstanding this issue of self-selection bias, the results of the current meta-analysis, at present, represent the best indicator of the effectiveness of restorative justice practices. At the very least, those individuals who choose to participate in restorative justice programs find the process satisfying, tend to display lower recidivism rates, and are more likely to adhere to restitution agreements.

APPROPRIATE TREATMENT

Although the effects of restorative justice participation on recidivism remain somewhat uncertain because of the self-selection bias, many argue that it may be naïve to believe that a time-limited intervention such as victim-offender mediation will have a dramatic effect on altering criminal and delinquent behaviour (Umbreit, 1994a). Additional factors, such as antisocial peers, substance abuse, and criminogenic communities, which have been linked to criminal behavior (Hawkins et al., 1998; Lipsey & Derzon, 1998), are not adequately addressed in the restorative process. Andrews and Bonta (1998) identified several criminogenic needs that they maintained are imperative to address in the treatment of offenders to effectively reduce recidivism.

In addition to those listed above, they identified antisocial attitudes, poor self-control and/or self-management, personality factors, family factors, and low levels of educational and employment attainment.

Previous meta-analytic work conducted by Dowden (1998) and Andrews et al. (1990) found that so-called appropriate correctional treatment (i.e., those programs that adhered to the clinically relevant principles of risk, need, and responsivity),[1] displayed an appreciably higher mean effect size (+.26 and .30, respectively) for recidivism compared to the findings for restorative justice programs (+.07) presented here. In other words, although restorative justice programs may yield reductions in recidivism compared to more traditional criminal justice responses to crime, they did not have nearly as strong an impact on reoffending as psychologically informed treatment.

It has been argued, however, that restorative justice and rehabilitation are rather complementary approaches (Crowe, 1998). The utilization, therefore, of restorative and rehabilitative components as a comprehensive response to criminal behavior would be a valuable and theoretically directed experiment. This combination would enable both approaches to capitalize on each of their strengths while minimizing their weaknesses. More specifically, the restorative processes could increase victim and/or offender satisfaction and restitution compliance while the rehabilitative processes could have a significant impact on recidivism.

MODERATING VARIABLES

Unfortunately, there were several questions that we were unable to answer because of a lack of data reported in the literature. For example, we were interested in exploring whether the characteristics of the facilitator had a significant moderating impact on restorative justice program effectiveness. However, very few, if any, of the studies provided information concerning the education, professional background, or training of the facilitators. This is particularly noteworthy as facilitators within restorative justice programs can have a significant impact on the outcome of a session. Support for this assertion may be found within the correctional treatment literature where program staff characteristics and behaviors have been found to have a significant impact on program effectiveness (Dowden & Andrews, 2004). There was also rather limited data on additional important variables such as the criminal history of the offenders (i.e., first-time offenders vs. repeat offenders), the specific offenses (i.e., minor vs. serious offenses, property vs. violent offenses), and the relationship between offenders and victims (i.e., family, neighbor, stranger).

In general, we were unable to provide an adequate explanation for the large range of reported effect sizes in each of the outcomes. It is possible that the significant factors in determining a more successful restorative justice program are those that were not reported in the literature (i.e., facilitator characteristics, offense types, criminal history). To facilitate a better understanding of the effectiveness of restorative justice, we recommend that future studies report outcomes, such as recidivism or satisfaction, separately for groups of offenders using such variables as gender, age, criminal history, offense types, and relationship between victim and offender. In addition, we recommend that studies provide more detailed information on the processes used within the restorative justice programs and the facilitators.

ADDITIONAL RESEARCH ISSUES

One issue that future studies may wish to explore is the effect that offender compliance with restitution agreements has on victim satisfaction. The restrictions of meta-analytic procedures precluded such an analysis. Morris and Maxwell (1998), however, did report that the reason most frequently reported for victim dissatisfaction in an evaluation of a family-group conference program in New Zealand was a failure to receive the appropriate restitution. More empirical research into the restitution conditions (i.e., type of restitution, size of restitution, length of time given to comply) that lead to successful compliance would also be appropriate. Moreover, the same type of analysis could be completed on restitution conditions and victim and/or offender satisfaction. And finally, there is no research in the literature that examines the longer term effects for victims who participate in a restorative justice process. An examination of whether victims still feel that they have experienced some closure and healing 6 months or a year after the restorative process would be beneficial.

It is surprising to note, given the current level of activity, there were no appropriate empirical evaluations of circle sentencing models or healing circles. This is likely because of our selection criteria, which required the use of a control and/or comparison group. In addition, as with a large proportion of criminal justice research, there was a dearth of information on the effectiveness of restorative justice for female offenders.

CONCLUSION

The current meta-analysis provides the most comprehensive empirical synthesis of the restorative justice literature to date. Despite some method-

ological limitations, the results provide notable support for the effectiveness of these programs in increasing offender/victim satisfaction and restitution compliance, and decreasing offender recidivism. The next critical step for research and program development is to obtain a better understanding of the effect of self-selection bias that diminishes our confidence in these results. To more definitively claim restorative justice an effective response to criminal behavior, we need to be able to address this limitation inherent in restorative justice research methods.

NOTE

1. For a detailed description of the principles of risk, need, and responsivity and their role in delivering effective correctional treatment, see Andrews and Bonta (1998).

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