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The Impact of Community Supervision Officer Training Programs on Officer and Client Outcomes: A Systematic Review and Meta-Analysis

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ABSTRACT

Traditional forms of community supervision focusing on control and punitive functions have been shown to be ineffective in improving client outcomes. In response, several officer training programs, including the Strategic Training Initiative in Community Supervision (STICS), Effective Practices in Community Supervision (EPICS), and Staff Training Aimed at Reducing Re-arrest (STARR) models, have been developed to better incorporate more rehabilitative-focused strategies into community corrections practices. In this meta-analysis of 25 studies, we assessed the impact of these programs on a variety of officer and client outcomes. Findings revealed that officer training increases the focus of the discussion content and use of core correctional practice skills during interactions with clients. Results also indicated that training in these programs produces reductions in client recidivism, especially among officers who implement core correctional practice skills with greater fidelity. This study supports the continued use of officer training programs and identifies areas for future research.

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Community supervision; probation; parole; STICS; EPICS; STARR

Community supervision represents the largest portion of the United States corrections system, which currently includes nearly 3.9 million individuals on probation and parole (Kaeble, 2021). While the original goals of community supervision were often discussed in terms of reform and diversion from incarceration (Petersilia, 1997), many have come to consider the practice as a "net-widener" that leads to increased punishments and greater chances of incarceration for less serious offenses (Phelps, 2013). This net-widening effect is believed to occur due to a combination of factors, including an emphasis on surveillance, a long list of supervision conditions and requirements, a variety of burdens placed on clients under supervision (e.g. financial and time requirements), and the constant threat of incarceration (Doherty, 2016). As a result, some have come to view community supervision as being more punitive than incarceration (Phelps & Ruhland, 2022) and others identify the practice as further contributing to mass incarceration and racial and class disparities in the criminal justice system

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(Human Rights Watch, 2020). The enormity of community supervision population combined with its potential for net-widening and increasing disparities have contributed to calls for reforms that can improve the effectiveness of supervision and limit its negative impacts on clients and society (Cullen et al., 2017; Latessa & Lovins, 2019).

Research on the effectiveness of traditional forms of community supervision emphasizing control and punitive functions (e.g. intensive supervision) has generally revealed null effects to slight increases in recidivism (Bonta et al., 2008; Drake, 2018; Gendreau et al., 2000; MacKenzie, 2006; Petersilia & Turner, 1993; Solomon, 2006). In contrast, research on rehabilitative-focused strategies of correctional supervision has consistently demonstrated that reductions in recidivism occur when treatment services employing cognitive-behavioral techniques are matched to the individual risk (i.e. one's actuarial probability of recidivism) and needs (i.e. dynamic risk factors directly related to recidivism) of the clients (e.g. Andrews et al., 1990; Dowden & Andrews, 1999, Lipsey & Cullen, 2007; Wilson et al., 2005). These two empirical realities combine in the recommendations for community corrections agencies to reduce their focus on control and surveillance strategies and to expand their use of rehabilitative interventions and other services (see e.g. Gleicher et al., 2013).

Although the literature clearly documents the efficacy of rehabilitative practices, research also indicates that reform efforts in real-world settings often face serious implementation challenges (e.g. staff resistance, misalignment with agency culture; Bonta et al., 2008; Rudes, 2012; Steiner et al., 2011; Viglione, 2017; Viglione et al., 2015). As translational efforts to better incorporate rehabilitative services into routine correctional practice increase, however, one strategy receiving growing scholarly and practitioner attention are community supervision officer training programs (Trotter, 2013). These structured training programs, including the Strategic Training Initiative in Community Supervision (STICS) model (Bonta et al., 2011), the Effective Practices in Community Supervision (EPICS) model (Smith et al., 2012), and the Staff Training Aimed at Reducing Re-arrest (STARR) model (Robinson et al., 2011), are designed to teach officers how to better incorporate effective rehabilitative practices into their everyday interactions with clients (Bourgon et al., 2012; Lowenkamp et al., 2013). While these models have proliferated rapidly and been marketed to community corrections agencies as an evidence-based practice, there has been only one quantitative synthesis of the empirical literature on the impacts of these programs conducted to date (Chadwick et al., 2015). As this study was published more than seven years ago and additional primary studies have been conducted since, there is a need to revisit this research base to better understand what impact officer training programs have on theoretically relevant and practically important outcomes.

The goal of the current study was to assess the impact of these programs on officer selection of topics discussed and intervention strategies employed during client contact sessions by systematically reviewing and meta-analyzing the available literature. This investigation also sought to examine the influence of officer training and fidelity to the program skills on client recidivism. Given the considerable amount of time and resources required to implement and sustain these training programs, a better understanding of their impact on officer and client outcomes is critical for justifying their initial and continued agency investment. If these training programs result in improved

outcomes, this will help support the calls to scale up these interventions to additional community supervision officers and agencies. On the other hand, if these programs result only in marginal improvements or have no effect, modifications or alternatives should be considered.

Theoretical Background

The most dominant model of correctional rehabilitation falls under the umbrella of the General Personality and Cognitive Social Learning (GPSCL) perspective of criminal behavior, which posits that while there are many routes to antisocial behavior, the causes of crime are often found within the individual and their social learning environments (see Bonta & Andrews, 2017). There are 15 general, clinical, and organizational principles within the General Personality and Cognitive Social Learning perspective, which are often referred to as the principles of effective intervention (or PEI). These principles seek to delineate the best practices for correctional assessment and intervention. Undeniably, the three principles of risk, need, and responsivity (RNR) have garnered the most scholarly and agency attention (see also Gendreau, 1996; Smith et al., 2009).

The *risk principle* emphasizes that criminal behavior is predictable, thus correctional agencies should implement a validated risk assessment to measure potential likelihood for recidivism (Bonta & Andrews, 2017). Using the results from these assessments, authorities should then prioritize more intensive services and interventions for those who are at higher risk to recidivate. The *need principle* suggests that services and interventions should address dynamic risk factors that are directly related to recidivism (i.e. criminogenic needs). Criminogenic needs are separated into two categories—the major predictors ("Big 4") and moderate predictors ("Moderate 4") of criminal behavior.[1] The Big 4 include the domains of criminal history, antisocial attitude, antisocial peers, and antisocial personality and Moderate 4 include the domains of education/employment, family/marital, substance abuse, and leisure/recreation. Lastly, the *responsivity principle* requires services and interventions to be based on cognitive-behavioral and social learning techniques to address criminogenic needs and support positive behavior change (i.e. *general responsivity*) while also tailoring interventions to characteristics and learning styles (e.g. gender, culture, mental health) of each person (i.e. *specific responsivity*; see also Andrews et al., 1990; Gendreau, 1996; Lowenkamp et al., 2006). Evidence from several meta-analyses provides strong empirical support for the RNR principles, with stronger adherence linked to greater reductions in recidivism (Andrews et al., 1990; Bonta & Andrews, 2017; Lipsey & Cullen, 2007; McGuire, 2013; Smith et al., 2009).

To further increase the therapeutic effectiveness of correctional interventions within the General Personality and Cognitive Social Learning perspective, scholars have developed a set of core correctional practices (CCPs) or service delivery skills for officers to

[1]Although Bonta and Andrews (2017) no longer distinguish between the Big 4 and Moderate 4 criminogenic needs in the sixth edition of *The Psychology of Criminal Conduct*, the previous versions of their book did bifurcate the discussion of needs in this manner. Additionally, this distinction is important because many correctional agencies continue to train officers on distinguishing between the Big 4 and Moderate 4 needs.

implement during their interactions with clients (Dowden & Andrews, 2004). The core correctional practices include skills such as anticriminal modeling, effective reinforcement, effective disapproval, effective use of authority, structured learning, problem solving, cognitive restructuring, and relationship skills (see also Gendreau et al., 2010). Research suggests that use of core correctional practices results in reductions in recidivism (Farringer et al., 2021; Lowenkamp et al., 2006; Matthews et al., 2001). Scholarship, however, also consistently demonstrates the challenges of implementing practices aligned with core correctional practices in correctional environments, which are often due to resistance to change stemming from a range of factors such as mistrust or misunderstanding (see Rudes, 2012; Steiner et al., 2011; Viglione, 2017) and a misalignment between the new practice and existing organizational culture (Latessa, 2004; Viglione et al., 2015). As a result, carefully designed and effective training is necessary to lay the foundation for effective and sustained change within correctional settings.

Community Supervision Officer Training Programs

To translate the General Personality and Cognitive Social Learning perspective into real-world correctional practice, scholars have developed several formalized community supervision officer training programs to assist officers in better adhering to the principles of effective intervention (and RNR principles) and implementing the core correctional practices in interactions with their clients. These training programs have been adopted throughout the United States (EPICS, STARR, and Proactive Community Supervision [PCS; Taxman, 2008]), Canada and Sweden (STICS), Australia (Officer Skills Training; Trotter, 1996), and the United Kingdom (Citizenship Program [Pearson et al., 2011], Skills for Effective Engagement and Development [SEED; Sorsby et al., 2017], and Jersey Model [Raynor et al., 2014]). Although variation exists across elements of these programs, fundamentally, each seeks to teach officers a variety of skills, including building collaborative relationships, prioritizing the discussion of criminogenic needs, increasing use of core correctional practices, and supporting behavioral change with the goal of improving supervision compliance and reducing recidivism (see e.g. Bourgon et al., 2012; Lowenkamp et al., 2013; Smith et al., 2012).

The training structures of these programs are also largely consistent with one another, often starting with multi-day classroom instruction to introduce participants to concepts and skills and to provide the opportunity for practicing the use of core correctional practices with observation and feedback from the program facilitators. These initial classes are then generally followed up with ongoing, regularly scheduled booster and coaching sessions from staff with advanced training experiences and knowledge as a means of providing officers with refresher information and support in refining their effective skill usage. The coaches in these programs are often tasked with evaluating and providing constructive feedback to officers on their use of core correctional practices to encourage proficiency. To do so, most programs require officers to audio record their use of skills during the interactions with clients on their caseload. After listening to the recorded sessions, coaches then provide officers with written and verbal feedback on their performance. The intent of this process is to

increase officer use of core correctional practices and fidelity to the training model, which should help facilitate greater reductions in client recidivism (Labrecque & Smith, 2017).

Research on the impact of officer training programs includes evaluations using both officer and client outcomes. Studies in the former category tend to analyze the recorded officer-client interactions to assess for differences in the topics of discussion and use of core correctional practice skills between trained and untrained groups of officers (e.g. Smith et al., 2012; Starfelt Sutton et al., 2021), whereas investigations of the latter type seek to assess the influence of officer training (e.g. Pearson et al., 2011; Viglione & Labrecque, 2021) or officer fidelity to the training model on measures of client recidivism (e.g. Hicks et al., 2020; Labrecque & Viglione, 2021). Notably, some evaluations include both types of outcomes in the same study (e.g. Bonta et al., 2019; Robinson et al., 2012). A literature review of eight studies describes support for the ability of officer training programs to reduce client recidivism, especially when officers use core correctional practice skills with greater fidelity (Trotter, 2013).

More recently, Chadwick et al. (2015) meta-analyzed 10 studies and concluded that officer training was associated with a small, but statistically significant reduction in client recidivism (odds ratio = 1.48). While this quantitative synthesis of the literature has helped advance knowledge on this topic and garner support for these programs, there are a few notable shortcomings in its design that stem from the limited number of eligible studies that were available for analysis at the time of their data collection (i.e. April 2014). First, the authors did not assess the impact of program participation on officer choice of discussion topics or use of core correctional practices. Second, the authors combined all forms of recidivism together as one construct and did not separate results by specific type of recidivism (e.g. technical violations, arrest, reconviction). Finally, the authors did not investigate what effect officer fidelity to program skills has on client recidivism. As more contemporary studies are now available, there is a need to retake stock of the literature on officer training programs while addressing the three shortcomings present in the previous meta-analysis.

Current Study

While researchers and community corrections agencies have generally welcomed these new General Personality and Cognitive Social Learning perspective inspired community supervision officer training programs (Gleicher, 2020), the empirical research on their impact has not kept pace (Chadwick et al., 2015). Despite the adoption of STICS, EPICS, and STARR across many North American jurisdictions, for example, the National Institute of Justices' Crime Solutions database currently rates each of these programs as "promising."[2] This designation signifies that while there is some evidence these programs achieve their intended outcomes, there is also a need for more research before they can be considered "effective."

[2]See https://crimesolutions.ojp.gov

Despite the advancements that prior narrative reviews (Trotter, 2013) and quantitative syntheses (Chadwick et al., 2015) have made in propelling our understanding of the impact of officer training programs on recidivism, much less is known about what impact program participation may have on officer outcomes, or under what conditions these programs may be most effective in reducing client recidivism. In response, the current study provides a more current and comprehensive systematic review and meta-analysis of the literature. More specifically, this investigation addressed the following four research questions: (1) *Does officer training improve the discussion content in officer-client interactions?* (2) *Does officer training increase their use of core correctional practice skills in officer-client interactions?* (3) *Does officer training decrease client recidivism?* and 4) *Does greater officer fidelity in the use of core correctional practice skills decrease client recidivism?*

Method

Inclusion Criteria

To be included in this meta-analysis, studies were required to (1) involve a sample of community supervision officers who were trained in a formalized General Personality and Cognitive Social Learning perspective inspired program, (2) include an outcome measure for officers or clients, and (3) contain sufficient information to calculate an effect size (ES). If a study met the first two criteria, but did not meet the third, the study authors were contacted for additional information. If the authors were not able to provide the necessary information to calculate an ES, the study was excluded.

Literature Retrieval

Several strategies were undertaken to locate empirical research on the impact of community supervision officer training published through 2021. First, an electronic database search was conducted in Criminal Justice Abstracts, Sociological Abstracts, PsychINFO, and Google Scholar using the following key terms: "community supervision," "risk-need-responsivity," "core correctional practices," "STICS," "EPICS," and "STARR." Second, the Online First indexes of journals that frequently publish research on community supervision topics were examined to uncover any scholarship not identified in the first step (e.g. *Criminal Justice and Behavior*, *International Journal of Offender Therapy and Comparative Criminology*, *Justice Quarterly*). Third, the reference lists from the identified sources, including the prior reviews by Trotter (2013) and Chadwick et al. (2015), were examined for leads on other studies not uncovered in the previous methods. Finally, scholars who were known to publish on community supervision research were contacted for an advanced copy of any unpublished or forthcoming research.[3]

[3]Additionally, one study (Bonta et al., 2021) was published during the peer review process and was subsequently added to our analyses.

Table 1. Descriptive table of included study characteristics ($N = 25$).

	%	*n*
Publication year		
1996–2001	4.0	1
2002–2006	4.0	1
2007–2011	20.0	5
2012–2016	32.0	8
2017–2021	40.0	10
Publication type		
Government report	20.0	5
Peer-review journal article	68.0	17
Unpublished manuscript	12.0	3
Program type		
Citizenship	12.0	3
EPICS	16.0	4
Jersey model	4.0	1
PCS	4.0	1
SEED	4.0	1
Skills training	12.0	3
STARR	28.0	7
STICS	20.0	5
Study location		
Australia	12.0	3
Canada	12.0	3
Sweden	8.0	2
United Kingdom	20.0	5
United States	48.0	12
Offender age		
Adult	80.0	20
Adult and juvenile	16.0	4
Juvenile	4.0	1
Offender risk levels		
Low, medium, and high	64.0	16
Medium and high only	36.0	9

Sample

The literature retrieval procedure identified 180 publications that were assessed for eligibility in the meta-analysis.[4] One hundred and thirty-four of the publications were excluded because they did not focus on a community supervision officer training program. Instead, these publications examined other aspects of community supervision, including intensive supervision practices, electronic monitoring strategies, other forms of therapeutic relationships, or the RNR model more generally. Of the remaining 46 studies, 17 were excluded because they did not include officer or client outcome data. Four more studies contained outcome data but were excluded because they reported the same results in two separate publications. In each of these instances, the most recent publication was retained for inclusion in the meta-analysis.

In total, there were 25 studies identified that met the inclusion criteria. These publications are listed in the references with an asterisk. Table 1 summarizes their main characteristics. These studies were all published between 1996 and 2021, with 18 (72%) published after 2011. Seventeen of the studies were published in peer-reviewed journals, five were government reports, and three were unpublished manuscripts.

[4]A flowchart of the search strategy employed to identify eligible studies for this meta-analysis is provided in the Online Appendix.

These studies included evaluations of STARR (7), STICS (5), EPICS (4), Citizenship (3), Office Skills Training (3), PCS (1), SEED (1), and the Jersey Model (1). Approximately half of the studies were conducted in the United States, followed by five in the United Kingdom, three each in Canada and Australia, and two in Sweden. The study samples were all comprised of a mixture of male and female clients on community supervision. Most studies (80%) included only adult samples, and nearly two-thirds (64%) involved clients of all risk levels.

Coding Procedures

A coding manual[5] was developed to systematically capture the characteristics of the included studies, including:

1. Study and author (i.e. year and type of publication)
2. Sample (i.e. sample size, client demographics)
3. Program (i.e. name of program)
4. Comparison group (i.e. method for selecting control group members)
5. Research design (i.e. type of methodological design, scientific integrity rating[6])
6. Dependent measure (i.e. type of outcome, length of follow-up)
7. Effect size (i.e. type of statistical test, sample size of treatment and control groups, significance tests, group means and standard deviations, proportions or frequencies, calculated effect size)

The dependent measures were categorized into three outcome types: (1) discussion content in officer-client contact sessions, (2) core correctional practice skills employed by officers during contact sessions, and (3) client recidivism. Discussion content included criminogenic needs, non-criminogenic needs, and probation conditions. Most primary studies operationalized this variable as the proportion of time (or time segments) during each taped interaction that was devoted to discussion of each category/content area. A greater proportion of time spent discussing criminogenic needs was considered a positive outcome for the training. Criminogenic needs were further

[5]The full coding manual is available in the Online Appendix.

[6]Scientific integrity was operationalized using a modified version of the Maryland Scale of Scientific Methods (Sherman et al., 1998) for community supervision officer training program evaluations, where:

Level 1: Correlation between prevention program and an outcome measure at one point in time (e.g., supervision outcomes compared between clients supervised by trained officers and all other clients). No comparison group is identified.

Level 2: Measures of outcome before and after the intervention, with no comparable control conditions (e.g., revocations decreased after training). Pre-test/post-test design.

Level 3: Measures of outcome before and after the intervention in experimental and control conditions (e.g., revocations decreased after training in an experimental group, but there was no decrease in revocations in a comparable sample).

Level 4: Random assignment of intervention and control conditions but study is characterized by high rates of attrition or other forms of selection bias (e.g., volunteerism, non-random selection of observations). No/inadequate attempt to establish baseline equivalence of experimental and control groups. High rates of overall or differential attrition.

Level 5: Random assignment of intervention and control conditions to units (e.g., use of skills among officers randomly assigned to have training increased compared to use of skills among untrained officers). This condition is not met if randomization occurs at a different unit of analysis than the outcome measure(s).

sub-categorized into the "Big 4" and "Moderate 4" needs. In addition, we further assessed the impact of officer training on the discussion of specific criminogenic needs, including antisocial attitude, antisocial peers, antisocial personality, education/employment, family/marital, and substance abuse.[7]

Core correctional practices included session structuring skills (i.e. check-in, review, homework), relationship skills (i.e. active listening, relationship building, role clarification), behavioral practices (i.e. effective use of reinforcement, disapproval, authority, role playing, prosocial modeling), and cognitive techniques (i.e. cognitive model, cognitive restructuring, problem solving, teaching skills, targeting attitude).[8] Primary studies most commonly operationalized adherence to core correctional practices through the use of program-specific rating procedures that yielded either a dichotomous indicator or a rating score for each skill during the taped sessions.

Recidivism included technical violations (i.e. probation revocations, terminations from probation, and positive drug tests), rearrest (i.e. any new arrest), and reconviction (i.e. any new criminal conviction). The recidivism studies were further separated into impact evaluations of officer training status (i.e. trained officers vs. untrained officers) and officer fidelity in core correctional practice skill usage (i.e. officers using skills with high fidelity vs. officers using skills with low fidelity).

The three authors independently coded all the studies. Interrater reliability analyses revealed that approximately 93% of the items (or 1367 of 1463 items) were scored in absolute agreement. The 96 items with a discrepant rating were resolved through a meeting of the three coders. The absolute intraclass correlation coefficients for the two variables with the most discrepant ratings were .813 for the calculated effect size and .961 for the study design type. Collectively, these results demonstrate that the studies were coded with a high level of reliability.

Effect Size Calculation and Interpretation

This study evaluated the impact of community supervision officer training programs on the discussion content of officer-client interactions, officer use of core correctional practice skills during client contact sessions, and subsequent client recidivism outcomes. It also assessed the influence of officer fidelity in the use of core correctional practices on client recidivism. To evaluate the magnitude of the group differences on these outcomes, Pearson's *r* was calculated as the effect size (ES) metric with its corresponding 95% confidence interval (CI) using a random effects model. Pearson's *r* was chosen because of its simplicity and common understanding as an effect size (Gendreau & Smith, 2007). The random model was selected over the fixed model because the intent of this study is to generalize the results beyond the included studies (see Tufanaru et al., 2015). The ESs were coded so that positive values indicated an increase in the outcome of interest for the trained group compared to the untrained

[7]Although criminal history is considered a Big 4 factor, it is not included as an outcome measure in these studies because it is a static variable that cannot be altered via intervention. Additionally, we were only able to generate one ES for the leisure/recreation category, so it could not be included in our meta-analysis.

[8]For more information on the Core Correctional Practices included in these training programs, see e.g. Bourgon et al. (2012), Lowenkamp et al. (2013), Labrecque and Smith (2017), and Gleicher (2020).

group (or high-fidelity group relative to the low-fidelity group) and negative values indicated a decrease in the outcome of interest for the trained group compared to the untrained group (or high-fidelity group relative to the low-fidelity group). The research design of this meta-analysis allowed studies to contribute separate ESs across multiple outcome categories. Individual studies, however, were only able to provide one ES per dependent variable. If a study included multiple measures for a similar outcome type, the estimates were averaged to produce the ES used in the analysis. The ES magnitudes were interpreted according to Cohen's (1988) guidelines, where *r* values of .1, .3, and .5 represent small, medium, and large associations, respectively.

Data interpretation also focused on the 95% CIs of the point estimates, which help determine the precision and replicability of the findings (Cumming, 2012). Confidence intervals greater than .10 are considered imprecise and in need of further replication (Smithson, 2003). Heterogeneity in the ESs were assessed using the I^2 statistic, which is an index of discrepancy across the results of a group of studies with potential values ranging from 0% to 100%.[9] Following Higgins and Thompson's (2002) guidelines, I^2 values of 25%, 50%, and 75% were interpreted here as possessing low, medium, and high levels of heterogeneity, respectively.

Results

The 25 studies included in this review produced a total of 114 ES estimates spread across the four outcome types.[10] More specifically, there were eight studies with 44 estimates that included a discussion content outcome, 11 studies with 37 estimates that included a CCP outcome, 15 studies with 20 estimates that included recidivism outcome by officer training status, and eight studies with 13 estimates that included recidivism outcome by officer fidelity status. Figures 1–4 report the individual study ES estimates and their 95% CIs by outcome type.

The meta-analytic findings are presented below by outcome type, which include a summary of the average ES (*r* and 95% CI), Cochran's Q, I^2, number of ES estimates (*k*), and the total sample size (*n*) for each category.[11] The tables also include moderator analyses by methodological quality (i.e. scientific integrity rating of 4 or higher) and publication type (i.e. peer reviewed publication).

Discussion Content

Table 2 presents the results of the discussion content outcomes. As can be seen in the table, officers trained in the community supervision models were more likely than untrained officers to discuss criminogenic needs during contact sessions with their

[9]The I^2 statistic is based on Cochran's *Q*, which is a statistical significance test often used to assess heterogeneity of studies in meta-analysis. I^2 is calculated as $(Q - df)/Q \times 100\%$ and it is interpreted as the proportion of total variation in the estimates of treatment effect that is related to heterogeneity between studies, which is presented in percentage terms.

[10]A table summarizing these ES estimates by study and outcome type is included in the online Appendix. This table also provides information about the program type, age, risk, location, scientific integrity rating, base rates of outcomes for treatment and control groups, sample size, and the unweighted ES value (Pearson's *r*) for each study by category type.

[11]Funnel plots of the standard error by Fisher's *Z* are included in the Online Appendix by outcome type.

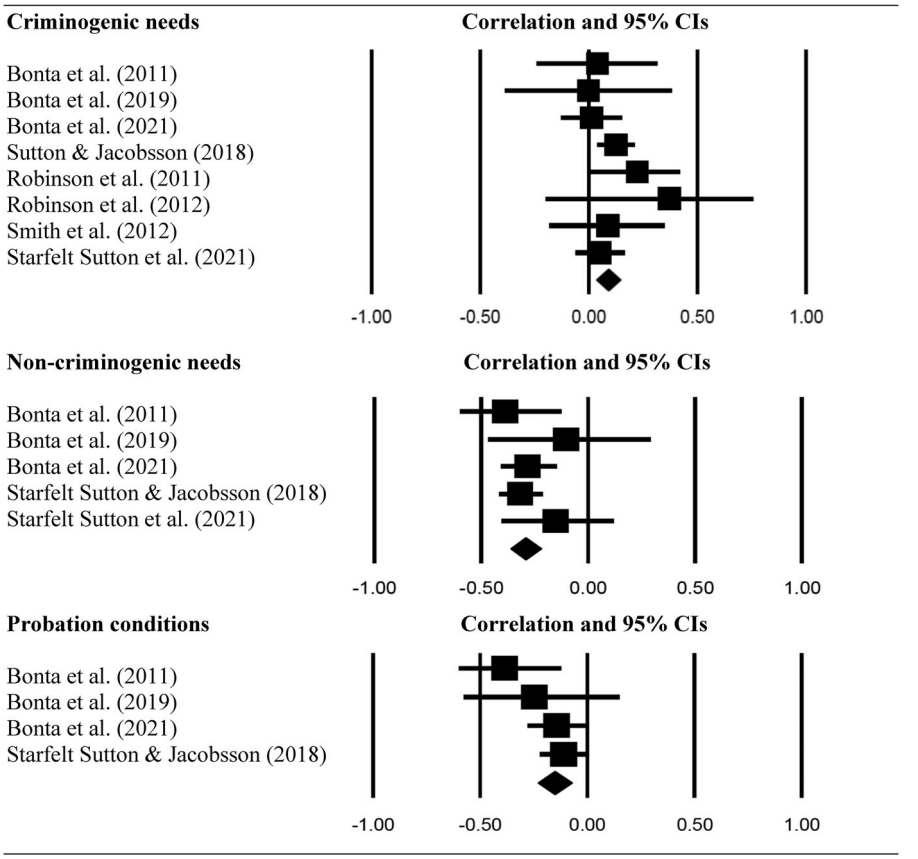

Figure 1. Individual study effect sizes and meta-analytic averages, discussion content outcomes.

clients ($p < .001$). More specifically, a small and imprecise positive relationship was detected between officer training status and the discussion of criminogenic needs ($r = .091$, 95% CI = .036 to .146). When broken down by type of criminogenic need, there was a small and imprecise positive relationship detected between officer training and the discussion of a Big 4 need ($r = .145$, 95% CI = .089 to .201) and a small and imprecise negative relationship found between officer training and the discussion of a Moderate 4 need ($r = -.178$, 95% CI = −.260 to −.094). That is, trained officers were more likely to discuss a Big 4 need and less likely to discuss a Moderate 4 need than untrained officers. Among the Big 4 needs, trained officers were particularly more likely to address the domain of antisocial attitude with clients relative to untrained officers ($r = .483$, 95% CI = .378, .576). A statistically significant relationship between officer training status and the discussion of antisocial peers and antisocial personality was not detected. The Moderate 4 needs of education/employment, family/marital, and substance abuse all had a small and imprecise relationship with officer training status.

Trained officers were also less likely to spend time during contact sessions talking with clients about non-criminogenic needs ($r = -.292$, 95% CI = −.361 to −.220) and supervision conditions ($r = -.165$, 95% CI = −.263 to −.063) than untrained officers.

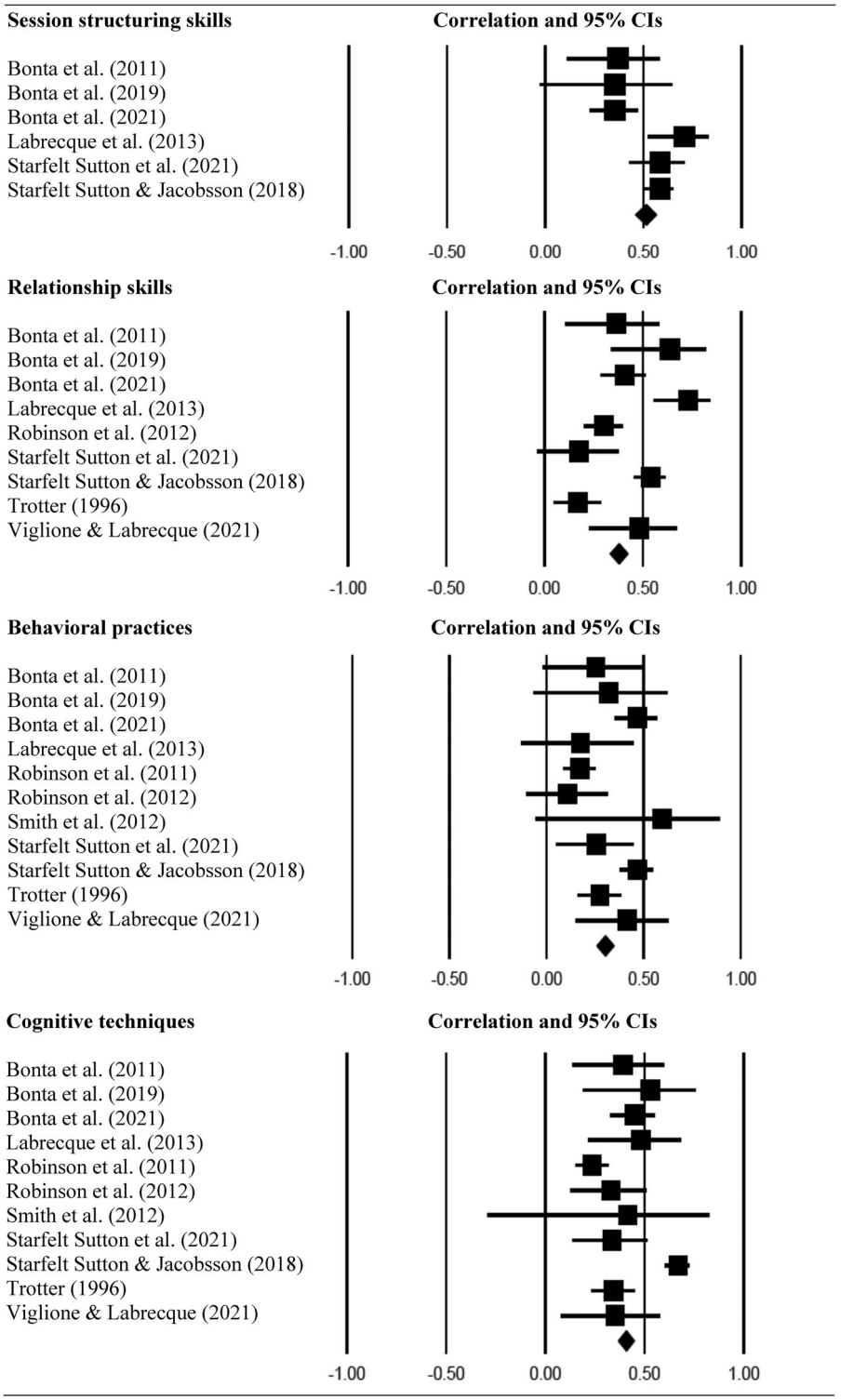

Figure 2. Individual study effect sizes and meta-analytic averages, core correctional practices outcomes.

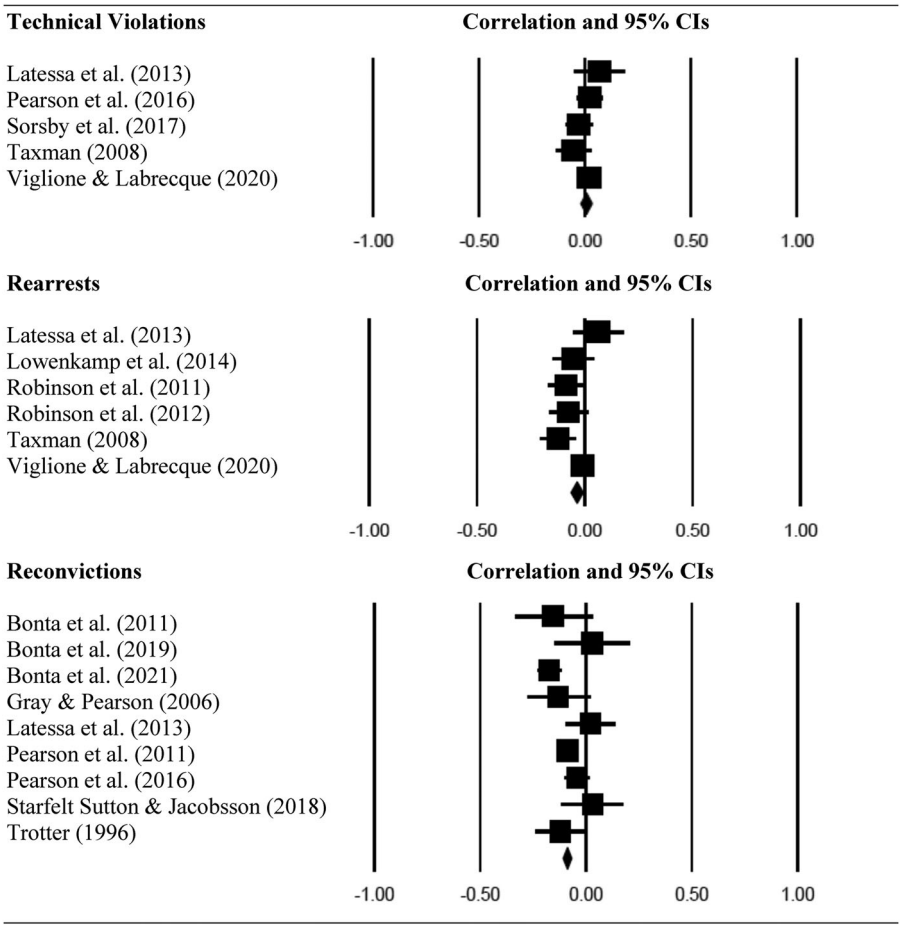

Figure 3. Individual study effect sizes and meta-analytic averages, officer training recidivism outcomes.

There were generally low to medium levels of between-subjects variability (I^2) discovered across the ES estimates of the discussion content outcomes. One exception was for the estimates of antisocial peers, which had a high level of heterogeneity. Moderator analyses confirmed that the results of the discussion content outcomes were robust when assessed by methodological quality and publication type.

Core Correctional Practices

Table 3 provides the findings of the core correctional practices outcomes. As evidenced in the table, trained officers were more likely than untrained officers to use the four core correctional practice skills during their contact sessions with clients ($p <$ .001). Although these findings are imprecise, there was a large difference found for session structuring skills (r = .511, 95% CI = .382 to .621) and a medium difference found for relationship skills (r = .419, 95% CI = .293 to .531), cognitive techniques (r = .418, 95% CI =.292 to .530), and behavioral practices (r = .309, 95% CI = .208 to

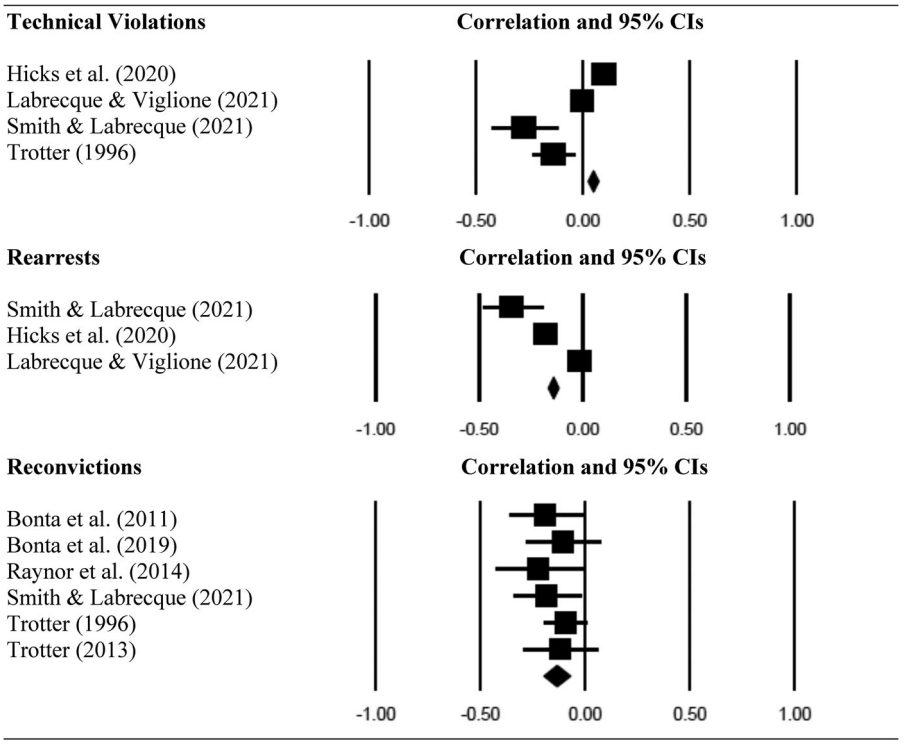

Figure 4. Individual study effect sizes and meta-analytic averages, officer fidelity recidivism outcomes.

Table 2. Meta-analysis of the impact of officer training in community supervision models on discussion content outcomes.

Outcome	*r*	95% CI	*Q*	I^2 (%)	*k*	*n*
Criminogenic needs	.091***	[.036, .146]	5.15	0.00	8	1268
High methodological rigor	.104***	[.042, .165]	2.79	0.00	5	998
Peer reviewed publication	.089**	[.033, .144]	4.16	0.00	7	949
Big 4 criminogenic needs	.145***	[.089, .201]	3.40	0.00	6	1198
Antisocial attitude	.483***	[.378, .576]	5.23	42.68	4	581
Antisocial peers	–.132	[–.328, .074]	7.78*	74.28	3	490
Antisocial personality	.069	[–.130, .263]	2.01	50.17	2	370
Mod 4 criminogenic needs	–.178***	[–.260, –.094]	0.56	0.00	4	536
Education/employment	–.179	[–.351, .006]	7.09	57.71	4	459
Family/marital	–.140**	[–.228, –.049]	1.66	0.00	4	472
Substance abuse	–.175***	[–.256, –.091]	1.09	0.00	4	536
Non-criminogenic needs	–.292***	[–.361, –.220]	2.92	0.00	5	654
High methodological rigor	–.315***	[–.401, –.223]	1.54	0.00	3	398
Peer reviewed publication	–.266***	[–.264, –.162]	2.40	0.00	4	335
Probation conditions	–.165**	[–.263, –.063]	3.96	24.20	4	599
High methodological rigor	–.216*	[–.394, –.022]	3.94	49.20	3	398
Peer reviewed publication	–.224**	[–.373, –.063]	2.77	27.84	3	280

Note. *r* = Pearson's correlation coefficient; CI = confidence interval; *Q* = Cochran's measure of homogeneity; *k* = number of samples; *n* = sample size.
*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.001$.

Table 3. Meta-analysis of the impact of officer training in community supervision models on core correctional practices outcomes.

Outcome	*r*	95% CI	*Q*	I^2 (%)	*k*	*n*
Session structuring skills	.511***	[.382, .621]	18.35**	72.76	6	728
High methodological rigor	.539***	[.381, .666]	7.53	60.15	4	442
Peer reviewed publication	.429***	[.290, .550]	5.58	46.22	4	365
Relationship skills	.419***	[.293, .531]	48.57***	83.53	9	1369
High methodological rigor	.513***	[.341, .652]	24.48***	83.66	5	773
Peer reviewed publication	.332***	[.224, .431]	16.48**	63.54	7	1006
Behavioral practices	.309***	[.208, .403]	35.95***	72.18	11	1647
High methodological rigor	.259**	[.096, .408]	25.18***	80.14	6	1042
Peer reviewed publication	.289***	[.188, .383]	20.7**	61.38	9	1284
Cognitive techniques	.418***	[.292, .530]	67.50***	85.19	11	1648
High methodological rigor	.450***	[.221, .632]	64.55***	92.25	6	1042
Peer reviewed publication	.343***	[.277, .406]	10.89	26.54	9	1285

Note. r = Pearson's correlation coefficient; CI = confidence interval; Q = Cochran's measure of homogeneity; k = number of samples; n = sample size.
*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.001$.

.403). There were high levels of dispersion found across the ES estimates of the core correctional practices outcomes. These findings were robust when separated by the quality of methodological design and publication type.

Recidivism—Trained versus Untrained Officer Comparisons

Table 4 reports the results of the officer training and recidivism outcomes. As shown in the table, clients supervised by trained officers were marginally less likely to be rearrested ($r = -.05$, 95% CI = −.098, −.001) or reconvicted of a crime during the follow-up period ($r = -.080$, 95% CI = −.125, −.033) than those monitored by untrained officers. There was a null effect detected between officer training status and technical violations (r = .004, 95% CI = −.027 to .035). Although slight, the ESs across these three measures were precise with low to medium levels of variability. When restricted to only higher quality studies, a smaller and non-statistically significant effect was detected across all three recidivism outcomes. In contrast, the results of the peer-reviewed studies indicated larger and statistically significant effects across all three of the outcome types.

Recidivism—High Fidelity versus Low Fidelity Officer Comparisons

Table 5 presents the findings of the officer fidelity and recidivism outcomes. In comparison to the results from the trained versus untrained recidivism analyses, larger effects were detected in the recidivism outcomes between clients supervised by officers who demonstrated higher versus lower fidelity to the core correctional practices during their client contact sessions. More specifically, small negative and imprecise differences were found in the rearrest ($r = -.165$, 95% CI = −.301 to −.022) and reconviction ($r = -.134$, 95% CI = −.197 to −.069) measures by officer fidelity status. Again, a statistically significant group difference in technical violations was not detected ($r = -.062$, 95% CI = −.183 to .062). The heterogeneity of the ESs was low in the

Table 4. Meta-analysis of the impact of officer training in community supervision models on recidivism outcomes.

Outcome	*r*	95% CI	*Q*	I^2 (%)	*k*	*n*
Technical violation	.004	[−.027, .035]	4.97	19.56	5	5578
High methodological rigor	.001	[−.039, .053]	2.38	15.91	3	2294
Peer reviewed publication	−.015	[−.059, .028]	2.48	19.18	3	2570
Rearrest	−.050*	[−.098, −.001]	11.09*	54.93	6	4937
High methodological rigor	−.048	[−.107, .012]	4.51	33.47	4	1648
Peer reviewed publication	−.088***	[−.133, −.044]	1.31	0.00	4	1929
Reconviction	−.080***	[−.125, −.033]	19.95*	59.89	9	9320
High methodological rigor	−.026	[−.073, .020]	3.70	0.00	5	1766
Peer reviewed publication	−.094***	[−.150, −.038]	13.31**	69.95	5	8438

Note. *r* = Pearson's correlation coefficient; CI = confidence interval; *Q* = Cochran's measure of homogeneity; *k* = number of samples; *n* = sample size.
*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.001$.

Table 5. Meta-analysis of the impact of officer fidelity to community supervision models on recidivism outcomes.

Outcome	*r*	95% CI	*Q*	I^2 (%)	*k*	*n*
Technical violation	−.062	[−.183, .062]	41.80***	92.82	4	5856
Peer reviewed publication	−.006	[−.120, .108]	25.99***	92.30	3	5715
Rearrest	−.165*	[−.301, −.022]	34.75***	94.25	3	5490
Peer reviewed publication	−.100	[−.255, .060]	28.04***	96.43	2	5349
Reconviction	−.134***	[−.197, −.069]	2.11	0.00	6	927
Peer reviewed publication	−.126***	[−.200, −.050]	1.67	0.00	4	669

Note. *r* = Pearson's correlation coefficient; CI = confidence interval; *Q* = Cochran's measure of homogeneity; = number of samples; *n* = sample size.
*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.001$.

reconviction category, but high in the rearrest and technical violation outcomes. When the results were separated by publication status, no statistically significant relationship was detected among the peer-reviewed publications for technical violations or rearrest.[12] The findings of the reconviction outcomes, however, maintained a small and imprecise negative relationship with officer fidelity status ($r = -.126$, 95% CI = −.200 to −.050).

Discussion

The goal of the current study was to critically assess and synthesize the empirical evidence on General Personality and Cognitive Social Learning perspective inspired community supervision officer training programs, including STICS, EPICS, STARR, Citizenship, Officer Skills Training, PCS, SEED, and the Jersey Model. Although variation exists across elements of these programs, at their foundation, each seeks to assist community supervision officers in better incorporating the use of core correctional

[12]We were unable to separate the findings by research design strength in this category as none of the included studies had a methodological rigor score of 4 or higher.

practices during their interactions with clients. While academic and agency interest in these programs remains high throughout North America and abroad, empirical research on their implementation and impacts has been limited (Chadwick et al., 2015; Trotter, 2013). By retaking stock of this growing literature base, this meta-analysis provided four main findings about the impact of these programs on officer and client outcomes.

First, officer training has been successful in transforming the nature and content of conversations in officer-client contact sessions. Trained officers were not only more likely than untrained officers to talk about criminogenic needs generally during these meetings but were also more likely to discuss risk factors that have a stronger relationship with criminal behavior (i.e. Big 4 criminogenic needs) and less likely to focus on issues that maintain a moderate (i.e. Moderate 4 criminogenic needs) or null association with criminal behavior (i.e. non-criminogenic needs, and probation conditions). This differentiation in the selection of discussion topic is meaningful, especially given previous research identifying the preference of supervision officers to focus on non-criminogenic needs and/or compliance issues during their interactions (Bonta et al., 2008; Viglione, 2017; Viglione et al., 2015). According to the General Personality and Cognitive Social Learning perspective, officers who focus on addressing risk and need factors with stronger relationships to criminal behavior are expected to achieve greater reductions in client recidivism (Bonta & Andrews, 2017). Among the Big 4 needs, however, trained officers were much more likely to discuss antisocial attitude but similarly likely to discuss antisocial peers or antisocial personality compared to untrained officers. This finding suggests that officer training programs may benefit from encouraging officers to increase their discussions of these latter two criminogenic needs in their conversations with clients.

Second, officer training led to moderate to large increases in use of core correctional practice skills during client contact sessions. While a rise in skill use may seem inevitable because trained officers receive instruction on these practices before they are asked to submit audio-recorded interactions of their usage for evaluation and untrained officers do not, the magnitude of this effect confirms that training is an effective mechanism for increasing officer knowledge and ability to implement session structuring skills, relationship skills, behavioral practices, and cognitive techniques. As core correctional practices have been shown to improve client behavior when targeted toward criminogenic needs (Dowden & Andrews, 2004), this finding supports the theoretical mechanism underlying the intent and design of these officer training models.

Third, officer training resulted in marginal reductions in client rearrests and reconvictions but demonstrated less meaningful impacts on technical violations. The study findings are precise with low to moderate levels of dispersion, which provide greater confidence in the results. Although this meta-analysis extends upon the prior reviews of the literature (Chadwick et al., 2015; Trotter, 2013) and provides further support for the ability of officer training programs to improve client outcomes, there are several potential reasons why the impact of these interventions on recidivism may be small in terms of magnitude, including that the program may work better among some groups of clients compared to others (e.g. higher versus lower risk), the dosage of treatment (e.g. frequency and duration of officer-client interactions) may not be sufficient to

bring about a more meaningful change in behavior, and there may be unaccounted variations in other types of services and interventions that clients receive which may have an influence on program effectiveness. Due to the limitations in the current literature base, these possibilities are unable to be explored at this time.

Fourth, officers who employed core correctional practice skills with greater fidelity during contact sessions were more effective in reducing client recidivism. The study findings revealed that the magnitude of the differences in the recidivism outcomes between high and low fidelity officer groups was more than three times greater for rearrests and nearly two times greater for reconvictions compared to differences found between the trained and untrained officers ($r = -.165$ vs. $-.050$ and $-.134$ vs. $-.080$, respectively). Although not statistically significant, the magnitude of the differences in the technical violation outcomes were also larger and in the anticipated theoretical direction in the fidelity comparison relative to the training comparison ($r = -.062$ vs. .004, respectively). These results suggest that training alone in these programs may not be enough to obtain the desired reductions in recidivism, but rather, great care needs to be taken to ensure that officers adequately know how to and elect to use these skills in their interactions with clients. While these training programs use practices designed to enhance implementation efforts (e.g. booster trainings, review of skills via audio-recordings), reforming the way probation officers do their job no easy feat. In fact, numerous studies identify the challenge of change (e.g. Rudes, 2012; Steiner et al., 2011; Viglione et al., 2015) even with comprehensive reform efforts (e.g. Viglione, 2017). Taken together, the findings of this meta-analysis suggest the critical role developing strategies to monitor and increase post-training fidelity to evidence-based practices.

Limitations and Future Directions

The findings of this meta-analysis must be interpreted cautiously. The ESs generated for the discussion content and core correctional practices outcomes were imprecise (i.e. width of 95% CI bands were greater than .10). One of the contributions to the imprecision of these estimates is the relatively small sample sizes included in these studies. As these investigations seek to evaluate officers, not clients, the ability to increase the sample size in any one jurisdiction is limited by its organizational size and capacity. This finding emphasizes a need for more rigorous research on the implementation and effectiveness of these training programs with larger samples of officers. This must be addressed at the primary study level with efforts made to limit selection bias through random assignment of officers to training or control conditions, clearer reporting of officer characteristics and attrition, and longitudinal monitoring of officer perceptions and implementation. Furthermore, the medium to high levels of heterogeneity found in the ESs of the core correctional practices outcomes indicate variability across studies. This could be an indication that one's acquisition of skills may be impacted by other moderating factors, such as their prior education and experience, quality of training, on-going coaching efforts, individual role orientations and approaches, caseloads, resources, agency culture and support of rehabilitation ideals, and overall buy-in to the training programs and associated skills. Future research

should seek to explore these possibilities more fully. The successful acquisition of core correctional practice skills may also vary by program type. Some models, for example, might emphasize the importance of skills differently during training. As more primary studies become available, subsequent meta-analyses should assess if skill acquisition varies by program type or specific program components.

Most of what is known about the impact of the officer training programs in reducing criminal behavior has been ascertained from samples of primarily adult males on probation. This has left much less known about effectiveness of these programs among other client subpopulations, such as juveniles, females, and individuals on parole. It is possible that supervision by trained officers may be more (or less) effective among different types of people under certain conditions. As such, future research should seek to explore how factors such as age, gender, race, risk level, and supervision type may moderate the relationship between the intervention and recidivism. Additionally, most of the identified studies have been conducted by the developers of these officer training models. Moving forward, more independent evaluations of these programs will provide greater confidence in the research findings.

There is also a need for more high-quality research that can better account for the influence of selection bias on the observed outcomes. While several of the primary studies included in this review randomly assigned officers to the training and control conditions, these studies frequently relied on groups of officers who volunteered or were pre-selected by managers to participate in the study. There are many reasons to anticipate that volunteer officers may differ from non-volunteers in ways that relate to the observed outcomes (e.g. higher education, greater support for rehabilitative ideals, more willing to try new supervision strategies). Additionally, there were relatively high rates of attrition found among officers who initially agreed to participate in these studies. Less rigorous research designs did not include a control condition or bifurcated the treatment sample into high and low fidelity adopters. While the high-low fidelity design allows primary study authors to better understand the impact of the training when adopted with fidelity, this design does not adequately account for potentially confounding differences between the two study groups. To strengthen the empirical base on the impacts of these officer training programs, researchers and agencies will need to design more rigorous evaluations that include larger samples, commit more fully to the merits of a randomized controlled design, and carefully monitor program implementation and participant attrition. To account for the nesting of officers within agencies and clients within officer caseloads, multistage cluster sampling may offer promise for more accurately identifying the impact of training on supervision outcomes. This is especially important as these programs begin to be scaled up beyond pilot samples of carefully selected staff. If randomized assignment is not possible, propensity score matching provides an alternative mechanism for generating greater group balance (Campbell & Labrecque, 2018).

While this investigation found that greater fidelity in the use of the core correctional practices was associated with significant improvements in client outcomes, it is important to acknowledge that these findings were imprecise with large levels of dispersion found in two of the three recidivism outcomes. Again, more research is needed on this topic, particularly scholarship that can improve on the measurement

of the quality of core correctional practices usage, determine which skills are more effective in reducing recidivism, and assess what level of proficiency is needed to obtain optimal results.

The use of core correctional practices taught through the officer training programs may be just one part of a more holistic approach toward the effective supervision and interaction with clients on supervision. There is some evidence to suggest, for example, that officer use of core correctional practice skills may be more effective when paired with the greater use of motivational interviewing skills (Labrecque et al., 2015; Lowenkamp et al., 2014). There is also good reason to anticipate that additional client participation in other types of evidence-based treatment services (e.g. cognitive-behavioral therapy, substance abuse treatment) might help to further mitigate against recidivism (Bonta & Andrews, 2017). Future research, therefore, should prioritize the examination of the mechanisms that may operate between officer training and client outcomes. For instance, intermediate outcomes such as treatment initiation, engagement, and/or completion, and changes in client risk scores may be assessed to better establish a causal process between training, officer knowledge and use of skills, and recidivism. The quality of the relationship between officers and clients should also be assessed as several programs indicate that they intend to improve these relationships. It is also possible that client perceptions of procedural justice and legitimacy may have a differential impact on the effectiveness of exposure to officer training programs on recidivism (Blasko & Taxman, 2018). Additionally, there has been recent calls to consider outcomes beyond recidivism in assessing the effectiveness of community corrections agencies (e.g. Butts & Schiraldi, 2018; National Academies of Sciences, Engineering, and Medicine, 2022). This framework should be applied to understanding the effectiveness of officer training programs on a range of outcomes, such as overall well-being, relationships, and engagement in health care.

Finally, one of the perplexing findings in this study was that there were no statistically significant differences found in technical violations between clients supervised by trained and untrained or higher and lower fidelity officers. One possibility for this finding is that trained officers may be more likely to inquire about the client and his/her situation, which may bring to light more circumstances that involve violations of probation. While this possibility remains speculative, future research should seek to assess *if* and *why* officer training programs may produce a differential effect among recidivism outcomes. It is also critical to examine the outcomes of the technical violations. That is, if trained officers are identifying more technical violations but are responding to them in non-punitive ways, this may suggest beneficial effects of training. These programs may also produce a differential effect on technical violations depending on whether the measures involve observed versus official sanctions. Again, more research is needed to explore these possibilities.

Conclusion

The results of this systematic review and meta-analysis support the continued use of community supervision officer training programs that are grounded in the General Personality and Cognitive Social Learning theoretical perspective. The path forward,

however, remains in need of careful consideration and planning. This study showed that officer training leads to increases in the discussion of antisocial attitudes and use of core correctional practices during officer-client contact sessions. It also found that supervision by trained officers leads to less client recidivism, especially when staff applied the core correctional practice skills with greater fidelity. Agencies may be able to promote better correctional outcomes by taking steps to increase officer knowledge and application of core correctional practices during client contact sessions. Prior research suggests several viable options for this task, including providing on-going officer coaching sessions (Labrecque & Smith, 2017), providing more advanced training opportunities (Labrecque & Viglione, 2021), and mandating skill use via policy directives (Viglione & Labrecque, 2021). Other strategies include hiring officers with more knowledge/experience with core correctional practices, conducting on-going performance evaluations, and improving organizational culture. Many of these strategies require organizational support from agency leadership and managers. The role of agency leadership and organizational support should be considered in future research that aims to contextualize the implementation and effectiveness of interventions intended to improve the use core correctional practices. To maximize the potential benefits of these training programs and reduce staff hesitancy in adopting the models with fidelity, further research is needed to establish not just that this approach is efficacious but also how it works, what components are most consequential, and how the model can be best implemented and sustained.

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