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Editorial Policy—*Criminology & Public Policy* (CPP) is a peer-reviewed journal devoted to the study of criminal justice policy and practice. The central objective of the journal is to strengthen the role of research findings in the formulation of crime and justice policy by publishing empirically based, policy-focused articles. Authors are encouraged to submit papers that contribute to a more informed dialogue about policies and their empirical bases. Papers suitable for CPP not only present their findings, but also explore the policy-relevant implications of those findings. Specifically, appropriate papers for CPP do one or more of the following:

- Strengthen the role of research in the development of criminal justice policy and practice
- Empirically assess criminal justice policy or practice, and provide evidence-based support for new, modified, or alternative policies and practices
- Provide more informed dialogue about criminal justice policies and practices and the empirical evidence related to these policies and practices
- Advance the relationship between criminological research and criminal justice policy and practice

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EDITORIAL INTRODUCTION

CIVIL GANG INJUNCTIONS

Civil Gang Injunctions

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Much progress has been made in gang research and in the development of gang-specific interventions during the past few decades. The enhancement of our understanding about gang processes and law enforcement responses is evident in Hennigan and Sloane's (2013, this issue) article examining how civil gang injunction (CGI) implementation can affect gang crime and violence. This article provides a nice supplement to Maxson, Hennigan, and Sloane's article published in this journal in 2005; one can see the progression of knowledge about CGIs as an intervention tool. The two policy essays by Melde (2013, this issue) and Papachristos (2013, this issue) highlight the fact that although progress has been made, there is still much to be learned. These three publications acknowledge that not only is it important to assess the extent to which various policies and interventions achieve their desired effects, but also it is equally important to assess how or why these strategies do or do not achieve their desired goals. What, for instance, are the mechanisms through which CGIs reduce gang crime and violence? What aspects of a CGI are linked to greater reductions in crime? Are there characteristics of the gang that should be considered in CGI implementation?

As is the case with research in many arenas, research efforts investigating gangs and gang interventions continue to provide contradictory pictures of the gang problem and possible solutions. Evaluations of gang intervention strategies often produce frustratingly mixed messages about the effectiveness of a particular policy or program. One study, for instance, claims that X reduces crime, but then another study reports that X has no effect (the CGI research is no exception). Such conflicting reports cause confusion and frustration, but it might be that both outcomes are reflective of a more complex reality than is assumed. Hennigan and Sloane's (2013) article provides a situation in which CGIs are associated with both an increase and a reduction in gang crime; the CGIs in their south study sites witnessed reductions in gang crime and violence, but their north study area experienced an increase in crime and violence. How can the same intervention produce diametrically opposing results?

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Hennigan and Sloane, as well as the two policy essays (Melde, 2013; Papachristos, 2013), shed some light on this question.

It may be overly simplistic to say that the answer to the preceding question lies in the dual realities that (a) gangs are complex social groups and should not be treated as a monolithic phenomenon and (b) program implementation may vary across time and place. Papachristos (2013) addresses the first issue in his essay, whereas Melde (2013) tackles the second issue. In his essay, Papachristos notes that the Fremont Hustlers studied by Fleisher (1998) are substantively and significantly different from the Black Kings studied by Venkatesh (1997). The observation that not all gangs are the same is by no means novel as differences in gang types were noted in Thrasher's (1927) landmark study of 1,313 gangs in Chicago. Since that original work, several gang scholars have identified different types of gangs based on behavioral characteristics (e.g., Cloward and Ohlin, 1960; Fagan, 1989), whereas others have classified gangs based on structural aspects (e.g., Klein, 1971; Maxson and Klein, 1995). The clear conclusion is that gangs come in many different shapes and sizes, and different types of gangs call for different types of programs or different implementations of the same intervention. To highlight this point, Papachristos suggests that the differences reported by Hennigan and Sloane (2013) between treatment and control areas might represent heterogeneity between gangs or neighborhood contexts rather than different implementations of the civil gang injunctions. Based on the history of gang research, one might reasonably expect that an intervention targeting the amorphous Hustlers may not be suitable for intervening with the Kings. Unfortunately, policies and programs to date have typically responded to gangs as if the noted differences did not exist.

In addition to structural and behavioral differences in gangs, Hennigan and Sloane (2013) begin to tease out the social processes through which gang interventions may work. As Klein (1971) has long argued, an often unintended consequence of targeting the gang as a group is a strengthening of group cohesion—the exact opposite outcome from that desired. Hennigan and Sloane provide evidence that such group-oriented efforts might run counter to the nature of gangs and gang members. They draw on social identity theory to hypothesize that interventions can adopt strategies that emphasize a process of individuation versus depersonalization. The latter approach is characterized by those programs that focus on group-level interventions that result in strengthening cohesion. The individuation process highlights the influence of individual choice and responsibility. Hennigan and Sloane examine how these social processes can result in different outcomes based on different implementation strategies of the same intervention. As with gangs, CGIs are not monolithic; they are implemented differentially and in a manner that might lead to opposing results. A suppression-based effort that targets the “groupness” of the gang (long an assumption that this groupness is what makes gangs unique and therefore the thing that should be targeted in interventions) may not be effective. The finding by Hennigan and Sloane that gang members are less susceptible to deterrence practices than nongang

youth (“[G]ang-involved youth reported lower estimates of the likelihood of being caught and punished for criminal activities in general and for violent activities in particular than nongang youth”) and that CGIs are implemented differently in two CGI areas provides two distinct policy recommendations. One, intervention efforts that target individual gang members rather than the group may be more effective, and two, CGIs that incorporate skill provisions into the implementation approach rather than a focus on suppression tactics might be more effective.

Turning now to program implementation issues, Melde’s (2013) essay offers several insightful observations about the realities of program practice and implementation. Drawing on the public health example of washing hands to reduce contagion (40% or more of physicians fail to comply with such guidelines), he draws attention to the fact that just because someone knows that a particular approach is more beneficial than another does not guarantee that knowledge will equate to action. Although program developers may provide carefully crafted programs, the reality is that frontline workers encounter many challenges in delivering services and the program focus might get lost in day-to-day operations. Melde observes that “many of the social service providers involved in such programs are not explicitly devoted to the prevention of crime or deviant behavior, but instead they focus on more general needs such as mental health, job skills, or education.”

Given the findings reported by Hennigan and Sloane (2013), communities contemplating implementing a CGI are encouraged to consider their recommendations that the emphasis should be on identifying smaller, well-defined safety zones that target specific individuals. This approach is in direct contrast to the recent trend of identifying large numbers of potential gang members in a large catchment area. Research and theory both support Hennigan and Sloane’s notion that “smaller safety zones constructed around well-developed street information about the activities of the gang will allow police officials to target individuals in the gang, and press them to move away from gang life.” Past practices and common-sense assumptions, however, suggest that targeting the larger gang and including as large an area as possible will prevent and deter gang members from hanging out in public places and thereby reduce crime. It will be interesting to determine whether research will inform policy in this arena any more than health research has changed the hand-washing practices of physicians.

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EXECUTIVE SUMMARY

CIVIL GANG INJUNCTIONS

Overview of: “Improving Civil Gang Injunctions: How Implementation Can Affect Gang Dynamics, Crime, and Violence”

Karen M. Hennigan

David Sloane

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Research Summary

The civil gang injunction (CGI) is an increasingly popular suppression strategy. Interviews with 416 youth in areas with and without a CGI suggest that suppression-oriented injunctions may have little useful impact on gang social dynamics. CGIs may have promise as part of a comprehensive strategy that uses enhanced sanctions both to suppress crime and to move individual gang offenders toward alternatives (such as education, personal development, and jobs), allowing them to imagine alternative social identities.

Policy Implications

Whether CGIs play a positive role in curtailing the activities of street gang members or whether they fuel it instead may depend on policy makers and criminal justice officials ensuring that (a) gang members are approached as individuals, (b) the safety zone is appropriately sized, and (c) police suppression activities are accompanied by gang-focused social services and a clear, transparent escape clause. Successful implementation depends on multiple city agencies being integrated into the CGI strategy early on.

Keywords

street gang, gang injunction, social identity, gang cohesion

Improving Civil Gang Injunctions

How Implementation Can Affect Gang Dynamics, Crime, and Violence

Karen M. Hennigan

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University of Southern, California

Civil gang injunctions (CGIs) are an increasingly popular street gang control technique. Although admired by criminal justice officials, we know relatively little about how differing implementation approaches might affect their efficacy. In this study, we interviewed youth in contrasting neighborhoods—some under a CGI and others not—to observe the ways gang injunctions may strengthen or weaken the gang as a group. We conclude that improved knowledge of social psychological processes will help policy makers more effectively craft gang injunctions to achieve sustained neighborhood change.

Street gangs play a major role in the socialization of youth, the social and organizational context of neighborhoods, and the level of crime and fear of crime in many communities. In 2008, close to 774,000 gang members belonging to 27,900 gangs were reported

This research was supported by the National Science Foundation under Grant No. 0550228, Karen Hennigan and David Sloane, principal investigators. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation (NSF). The authors want to thank Cheryl Maxson and Malcolm Klein for their contributions to the study. They also thank members of LAPD command staff, LAPD area officers, the city attorney's staff (Martin Vranicar, Max Shiner, and Travis Austin), and LAPD Senior Crime Analyst Nathan Ong. The authors want to acknowledge the contributions of the following undergraduate and graduate students who assisted in this project: Celestia Alvarado, Monique Bustos, Enrique Carmona, Joaquin Castor, Amber Cordova, Michelle Garcia, Veronica Gilliard, Alex Huckstepp, Janette Jimenez, Nancy Menjivar, Shafiq Meyer, Jorje Montijo, Jessica Payne, Jennifer Reynoso, Ann Reyes-Robbins, Perla Romero, Holly Smith, Marija Spanovic, Joy Stratton, Eduardo Vasquez, Flor Vindel, Emily Williams. We especially want to thank our research associates: Ellen Shiau and Kathy Kolnick who aided with census data; Joey Nuñez Estrada who contributed to the management and research of the project; and Marija Spanovic who tested the SEM models reported. Direct correspondence to Karen M. Hennigan, University of Southern California, 3620 McClintock Avenue, Los Angeles, California 90089-1061 (e-mail: hennigan@dornsife.usc.edu).

across the United States.¹ Howell, Egle, Tita, and Griffiths (2011) reported that gang activity has remained concentrated and prevalent and that “gang violence rates have continued at exceptional levels over the past decade *despite* the remarkable overall crime drop” (p. 13). Gang youth account for most serious and violent crimes committed by adolescents. Their peak level of offending occurs when they are active gang members, with less criminal involvement before joining and after (Krohn and Thornberry, 2008; Thornberry, Krohn, Lizotte, Smith, and Tobin, 2003). Certainly, interventions are needed to weaken the hold gangs have on our youth.

Various suppression and intervention approaches have been attempted (see Klein, 1995a; Klein and Maxson, 2006; Wong, Gravel, Bouchard, Morselli, and Descormiers, 2011, for reviews). In 1992, an anti-loitering law, similar to a CGI, was enacted in Chicago but was found unconstitutional (Strosnider, 2002). In contrast, the CGI approach was upheld by the California Supreme Court in 1997. Over the last decade, many jurisdictions in California and other regions of the United States have implemented CGIs (Maxson, Hennigan, and Sloane, 2003). However, community critics and criminal justice professionals have expressed concerns about whether its benefits can be sustained, especially given the relatively high cost (Los Angeles County Civil Grand Jury, 2004) and the potential negative unintended consequences for gang-affiliated and nongang youth (Crawford, 2009; Herd, 1998). A recent Orange County court decision reinforced these concerns when it limited ways youth can be included in a CGI (Irving, 2011), suggesting that improving CGI implementation is an important public policy objective.

Responding to Gang Crime with Civil Gang Injunctions

Law enforcement has estimated that Los Angeles County is home to between 1,000 and 1,300 gangs with more than 95,000 members (Los Angeles County Civil Grand Jury, 2004). Currently, 44 CGIs are active in Los Angeles involving 72 gangs.² CGIs target territorial gangs, not gangs primarily organized around drug sales or nonterritorial gangs centered on shared common beliefs, such as skinheads (see Klein and Maxson, 2006, for a discussion of gang types). Although territorial gangs may also participate in drug sales, collection of “taxes,” or other illegal “businesses,” the identity of common street gangs is tied to their spatial location, and CGIs are designed to take advantage of this attribute. City and county prosecutors develop a CGI in collaboration with local police departments by gathering evidence that members of a street gang present a public nuisance. (See Genelin, 1998; Maxson et al., 2003; Shiner, 2009, for details of the process.)

1. Information is based on the 2008 National Youth Gang Center's yearly survey of law enforcement jurisdictions (ncjrs.gov/pdffiles1/ojdp/229249.pdf). Additional findings from these surveys can be accessed at nationalgangcenter.gov.

2. Data data compiled in July 2011 are obtained from atty.lacity.org/our_office/criminaldivision/ganginjunctions/index.htm.

The Los Angeles City Attorney's office injunction strategy is focused on the abatement of nuisances caused by gang members in specific neighborhoods. Their 2009 report explains the theory behind gang injunctions in this way (Los Angeles City Attorney's Office, 2009: 1, emphasis in the original):

Gang injunctions are a product of a simple but previously overlooked idea: that a gang can be sued in civil court just like any other entity. The power of gang injunctions is that these civil lawsuits can result in court orders which prohibit members of the gang from engaging in activities that have been shown to contribute to the harm gangs cause, such as associating with other gang members in public, trespassing on private property, and marking their territory with graffiti. These injunctions are somewhat unique in that they are one of the few preventative law tools available to law enforcement. The activities of the members of a gang can be restricted in an effort to *prevent* them from engaging in criminal activities.

In practice, this approach involves the police and attorneys in the process of arresting and prosecuting individuals identified as gang members for disobeying any of the clauses included in the injunction within a defined "safety zone." Law enforcement identifies the gang and specific gang members, the boundaries of a geographic "safety zone," and a list of specific behaviors to be prohibited in the zone. Banned behaviors vary from illegal activities such as trespassing, vandalism, and drug selling to otherwise legal activities like wearing gang colors and carrying cans of spray paint. Nighttime curfews are often imposed. Legal critics have argued against many components but especially the most commonly applied sanction—the prohibition against any two named gang members associating with one another publicly in the safety zone called the "no association" clause (see Crawford, 2009; Stewart, 1998; Walston, 1999).

Implementation of each CGI element can differ. One injunction might target an entire gang and another might identify presumed hardcore insiders within the gang. One might proscribe a large safety zone, whereas another might sharply define the safety zone. Police units might or might not aggressively enforce the various banned behaviors (T. Austin, personal communication, September 3, 2010). Finally, allied social service activities, enhanced criminal justice actions, and other ancillary programs might accompany some, but not all, CGIs. The result is that implementation variations may play a large role in the overall success of the intervention.

Community and legal critics have argued that the CGIs create hardships, establish overly broad discretion in bringing youth under the order, expand enforcement beyond active gang members, and contain no or very limited provisions for removing oneself from the injunction when leaving gang life (see Crawford, 2009). In 2011, the American Civil Liberties Union (ACLU) of Orange County successfully sued the County District Attorney for at first agreeing to remove 60 supposed gang members from a CGI, and then after the

permanent injunction was approved adding some of them back administratively without them appearing in court (Irving, 2011). The City Attorney's office in Los Angeles recently created procedures to implement exit provisions for injunctions filed in the last 2 years and is looking for other ways to address these concerns (Austin, 2010). In practice, however, apparently very few individuals have successfully removed themselves from a CGI.

Mixed Results Suggest Promise, But How and Why?

Although law enforcement officials believe that CGIs are an effective gang intervention tool, previous studies of the impact of gang injunctions suggest a more guarded conclusion (ACLU, 1997; Grogger, 2002; Goulka et al., 2009; Los Angeles County Civil Grand Jury, 2004; Maxson and Allen, 1997; Maxson, Hennigan, and Sloane, 2005). The ACLU (1997) conducted one of the first statistical analyses of a gang injunction. They interpreted their comparison of crime indicators in and around a gang injunction in Los Angeles as showing an increase in violent crime in the injunction safety zone over the first year of the injunction.

However, Grogger (2002), whose study is the strongest methodologically and in terms of a broad representation of multiple injunctions, concluded that serious violent crime decreased during the year after the injunctions by 5% to 10% and found no evidence that injunctions displaced crime to adjoining areas, a finding with which the Los Angeles County Grand Jury study concurred (Los Angeles County Civil Grand Jury, 2004). Conversely, Goulka et al. (2009) found no evidence of a reduction in the level of overall "crime calls" for all nontraffic offenses in an Orange County California CGI. They found an increase in the single category of violent crimes in the injunction safety zone relative to a matched control area. However, their findings were ambiguous. The authors concluded that "These effects may reflect changes in the willingness to report crime to the police, which make it difficult to quantify actual changes in criminal behavior due to the injunction" (Goulka et al., 2009: xii).

Instead of evaluating changing crime statistics, Maxson, Hennigan, Sloane, and Kolnick (2004; Maxson et al., 2005) compared the responses of neighborhood residents before and after a San Bernardino, California injunction was implemented. Six months after implementation, residents in the primary injunction area reported more frequent police patrols, fewer gang members hanging around, as well as less gang intimidation, fear of gang members, and fear of crime in general than residents living in a matched comparison area less than a mile north. The persistence of these community perceptions over an extended period of time is an open question.

Overall, these mixed findings suggest that gang injunctions may be modestly effective in reducing crime and fear 6 months or a year after, but not uniformly so. The studies suggest variations in the impact of injunctions. Identification of variables that can help us understand and predict such variations would be a step forward. And we have virtually no information on how or why an injunction may influence gang members' behaviors in ways that can increase or decrease crime and victimization.

Influence on the Behavior of Gang Members

Given the varying conditions and results, how could implementation factors influence positive or negative changes among gang-involved youth in the affected areas? We pose three questions to explore the ways a CGI may influence gang involved youth.

First, do gang members perceive that CGIs increase the likelihood that they will be caught and punished because of a higher level of surveillance, stiffer sanctions, and other activities that result in arrest and prosecution? These considerations reflect a rational choice model of criminal behavior where specific and perceptual deterrence are thought to be important inhibitors of criminal actions (Zimring and Hawkins, 1972). Both the experience of being caught and arrested for a crime as well as an increase in one's perceptions of the likelihood of getting caught and punished are expected to reduce the probability of committing delinquent and criminal acts in the future.

Studies have confirmed youth also weigh other considerations as they contemplate criminal actions. Paternoster (1989) proposed that affective ties, moral beliefs, opportunities for delinquency, and informal sanctions (peer and parental) are also weighed along with perceived deterrence in one's calculation of whether to commit a crime. Several studies have found empirical support for this expanded model but mostly among low-risk individuals (see Pratt, Cullen, Blevins, Daigle, and Madensen, 2006, for a meta-analytic review).

Research findings have not always supported deterrence effects at the high-risk end of the continuum (see Foglia, 1997), whereas very few studies have examined the role of deterrence factors with gang-involved youth. Watkins, Huebner, and Decker (2008) suggested the decision to carry and fire a gun was associated with perceived risk of arrest for young adults but was rarely mentioned as an important factor by gang-involved youth. Similarly, Maxson, Matsuda, and Hennigan (2011) found only weak evidence for deterrence effects among gang-involved youth. Recently, Loughran, Piquero, Fagan, and Mulvey (2012) suggested that shifts in the calculus of factors that are weighed by high-risk youth are consistent with less avoidance of crime, and they found some evidence to support their view. This perspective and other perspectives on deterrence center on a rational process of weighing costs and benefits (including personal and social concerns) from an *individual point of view*.

Stafford and Warr (1993) discussed alternative ways that social influences may affect involvement in crime including normative pressures to violate the law. These authors considered that delinquency may be a group phenomenon or a collective experience, and that the "presence of companions during delinquent episodes may produce a heightened sense of anonymity" (p. 132). Hennigan and Spanovic (2012) elaborated on the sense of anonymity that may accompany behavior in the context of groups, especially street gangs. A common theme in gang research is a focus on group rather than on individual behavior, not in terms of acting in concert, but in terms of the motivation to act in accordance with group norms rather than with one's own self-interest. Grogger (2005) also observed that deterrence seems an unlikely explanation for reductions in crime after CGIs.

Nonetheless, gang injunctions are designed to increase arrests and the threat of arrest for gang members in the defined safety zones with the goal of deterring gang criminal activities. Gang injunctions have been associated with a higher visibility of law enforcement and with increased surveillance of the targeted gang (Maxson et al., 2005). Injunction orders often include provisions that make it easier for officers to arrest gang members (e.g., stipulations that make it possible to arrest youth in the presence of, rather than in possession of, guns or drug paraphernalia and simply for associating with another gang member in public). The expected impact of gang injunctions is, in part, based on the belief that the increased risk of arrest will act as a deterrent for gang-involved youth. Perceptions of the likelihood of getting caught and punished are expected to be higher for gang members in areas with a gang injunction, and this perception of higher risk could reduce levels of criminal offending.

The second question is whether gang injunctions reduce gang cohesion by disrupting opportunities to gather together openly in the safety zone (through the no association and curfew clauses). Researchers have found that gang cohesion is strongly correlated with members' involvement in violent activities and that disrupting cohesion could reduce crime. Klein and Crawford (1967) observed that internal sources of cohesion such as common goals, role differentiation, membership mobility, and affective bonds have "far less impact among gangs than among most groups" (p. 65). Consequently, Klein (1971; Klein and Crawford, 1967) avoided using measures of cohesion based on affective bonds or perceived similarity in favor of measures based on the frequency that gang members get together with each other. These researchers and others (e.g., Decker, 1996; Short and Strodtbeck, 1965) found that gang cohesion is generally weaker than cohesion in other social groups.

Gang injunctions explicitly prohibit gang members from associating in public within the safety zone, which could reduce levels of gang cohesion directly. Studies have confirmed that lower gang cohesion is associated with less criminal activity and higher cohesion with more (Decker, 1996; Jansyn, 1966; Klein and Crawford, 1967; Klein and Maxson, 2006; Short and Strodtbeck, 1965). If a CGI disrupts and weakens gang cohesion, then this change bodes well for the impact of gang injunctions.

However, we argue that the way a gang injunction is implemented could affect whether it will reduce gang cohesion. As gang researchers have observed, street gangs thrive on intergroup conflict *as a principal source of group cohesion* (Decker, 1996; Decker and Van Winkle, 1996; Klein and Crawford, 1967; Short and Strodtbeck, 1965). In the face of perceived conflict, gang members stick together and react as a group. Depending on how it is implemented, a CGI could just as easily increase rather than decrease gang cohesion by inadvertently triggering reactions at the group level that stimulate a sense of intergroup rivalry (i.e., cops vs. the gang). A strong potential exists for provoking an "us versus them" mentality—which has been shown to be a strong accelerant for gang violence (Decker and Van Winkle, 1996; Klein, 1995b).

Third, do gang injunctions weaken or strengthen an individual's identification with the gang? If injunctions reduce the strength of individuals' identification with their gang, then

fewer youth will advance from fringe to core membership, more youth will pull back from core involvement to fringe, fewer youth will join, and more will leave the targeted gang. Just how strongly a youth identifies with a street gang has an impact on how much he participates in the behaviors that are normative for the gang (see Hennigan and Spanovic, 2012; Tajfel, 1978; Vigil, 1988). Ample evidence shows that a primary norm of traditional American street gangs is participation in antisocial, illegal, and often violent activities (Decker, 1996; Decker and Van Winkle, 1996; Esbensen, Winfree, He, and Taylor, 2001; Fleisher, 1998; Hill, Howell, Hawkins, and Battin-Pearson, 1999; Klein and Maxson, 2006; Thornberry et al., 2003). Gang membership is relatively unstable, evidenced by the finding from the “causes and correlates” longitudinal studies that most youth who join a street gang leave the gang within a year or two. These studies have also documented a rise and fall in delinquent and criminal activities associated with joining and leaving a street gang (see Esbensen and Huizinga, 1993; Esbensen, Huizinga, and Weiher, 1993; Gatti, Tremblay, Vitaro, and McDuff, 2005; Gordon, Lahey, Kawai, Loeber, Stouthamer-Loeber, and Farrington, 2004; Klein and Crawford, 1967; Krohn and Thornberry, 2008; Thornberry et al., 2003). This cycle is one demonstration of the importance of social identity. As Vigil (2002) observed, a transition from self-esteem to “group esteem” maintains the focus on the collective identity needed to get the “work” of the gang done—and that “work” is slanted toward violent and criminal activities (Melde and Esbensen, 2012).

The possibility that a gang injunction could “backfire” is related to basic group dynamics explained by social identity and self-categorization theories (see Brewer, 1991; Hogg, 1992, 2001; Tajfel, 1978; Tajfel and Turner, 1979, 1986; Turner, Hogg, Oakes, Reicher, and Wetherell, 1987). Social psychologists have documented that the stronger a person identifies with a group, the stronger his or her adherence is to the group’s norms. Strong group identification leads an individual to think and act as an interchangeable member of that group, a process called *depersonalization*. A weaker identification allows more reflection on individual concerns, a process called *individuation*. Thus, is a gang injunction implemented in ways that increase individuation (by focusing on an individual’s personal options for change) or in ways that increase depersonalization (by focusing on the gang as a group)? One approach could lead to weakening group normative behavior (through a focus on self), whereas another approach could strengthen antisocial group normative behavior (see Hennigan and Spanovic, 2012).

Consider the message conveyed to gang members by the notice they receive when an injunction has been filed in court against their gang. In one scenario, the message conveyed is that “your” gang is under increased scrutiny (“all of us” police are against “all of you” gang members), under new rules that make it easier for police to arrest gang members with no defined end and no way to remove yourself from the injunction order (“all of you” gang members are in this together for the long term). This message could strengthen gang social identity and bring gang members closer together (see Caldwell, 2010), invoking a group response from *depersonalized* gang members focused on the “work” of the gang. Injunctions

and enforcement that apply heightened strengthened sanctions to all members of the gang now and into the future may result in short-term success but in long-term failure because the members' identification with the gang is fueled rather than defused.

Alternatively, consider a scenario where an injunction explicitly singles out the most active gang members by name, combined with realistic ways for an individual to desist from gang activities (via access to gang-focused services) and remove himself from the injunction order. An injunction approach that seeks to *individuate* gang members and invoke individual responses may over time weaken the group gang identity. Whereas the impact of this contrast may be exaggerated, social identity theory suggests that the way a gang injunction is framed and implemented can have important implications for its success or failure.

We hypothesize that differences in strength of identification with the gang will mediate the impact an injunction has on criminal activities and ultimately on levels of gang membership. Implementation that focuses on the gang as a group strengthens gang identification and group-level responses that override individual concerns, and promotes depersonalization and motivation to continue participation in criminal and violent ways. Conversely, injunctions that are paired with realistic diversion opportunities that direct youth to services and concentrate on progress toward developing individual assets, such as education, employment, counseling, removal of tattoos, and so on, have a better chance of weakening the hold that a street gang has on neighborhood youth (through individuation).

Methods

To identify the study areas, we interviewed police managers in the central administration, deputy city attorneys, and local police officers with gang expertise to understand how various administrative divisions implement and administer gang injunctions. We also participated in ride-alongs with officers to hone in on microneighborhoods in these divisions. We learned about the types of social services available in different neighborhoods. These rides also helped us understand the specific geographic terrains and locations of gang cliques.

The region of Los Angeles we studied is a highly urbanized, older section situated northeast and east of downtown Los Angeles. The region is a traditional industrial area east of the Los Angeles River with a long-standing Latino population. Long ignored by politicians, the area has suffered from large infrastructure projects, especially the construction of four freeways. However, the destruction of homes, the obstructions caused by the freeways, and the failure of policy makers to revitalize the area economically seems to have only strengthened the area's identity. Street gangs have been a part of these communities as far back as the 1940s.

This research was conducted in four locations called south 1, south 2, north, and control. The community characteristics, demographics, and other factors of the four areas were similar. A new CGI was implemented in each area (except the control) approximately 6 months prior to the beginning of data collection, a process that spanned 17 months. Two injunctions, south 1 and south 2, were implemented within the same police division,

TABLE 1

Characteristics of Gang Injunction Safety Zones and Study Areas^a

Safety Zones			South	North	Control	City of Los
	South 1	South 2	(Average)			Angeles
Area Characteristics						
Date injunction granted	Oct. 2006	Jan. 2007	Oct. to Jan. 2007	Feb. 2007	None	(na)
Size (sq. mi.)	1.71	2.10	1.91	4.64		498.29
Population	18,757	36,601	27,679	64,899		3,694,820
Households (HH)	5,459	9,189	7,324	23,763		1,275,412
Study Areas						
Area Characteristics						
Size (sq. mi.)	0.26	0.55	0.41	0.50	0.45	498.29
Population	6,186	11,057	8,622	11,568	12,730	3,694,820
Households	2,861	2,678	2,770	4,629	3,150	1,275,412
Percentage males age 15–21 in total population ^b	5.8%	5.9%	5.9%	3.8%	5.9%	5.1%
Concentrated Disadvantage Indicators ^c						
Percentage HH receiving welfare	15%	14%	14%	13%	17%	7%
Percentage HH below poverty level	32%	26%	29%	23%	38%	19%
Percentage population unemployed	5.8%	6.2%	6%	5.8%	6.4%	5.6%
Percentage female-headed households	16%	15%	16%	17%	17%	10%
Percentage population Latino ^d	68%	97%	82%	82%	93%	47%
Percentage population younger than age 18	33%	34%	34%	34%	35%	27%

Notes. HH = household; na = not applicable; sq. mi. = square miles.

^aCensus block group data, 2000.

^bYouth interviewed for this study were 14–21 years of age. Census population data do not break out age 14 separately from younger children.

^cData obtained from Sampson, Raudenbush, and Earls (1997) and Sampson, Sharkey, and Raudenbush (2008).

^dWe have substituted “percentage Latino” for Sampson’s “percentage African American” because of the minority population demographic differences between Los Angeles and Chicago.

whereas the third, north, was located in a separate division. The two divisions handled implementation differently, with the ones in the south favoring individuation, with incentives focusing on personal development and easy access to social services. Implementation in the north focused primarily on suppression of gang crime through arrests leading to incarceration.

As Table 1 shows, the CGIs differ substantially by the size of safety zone, which affects how many households are included. Small microneighborhoods were defined within each CGI safety zone so that we could concentrate our interviewers and achieve a high response rate in the target areas. The microzones focused on areas where troublesome gang cliques were located.

The control study area is not under a CGI, so it does not have a safety zone (although it was mentioned as a possible future target). In an attempt to mirror the approach used in the other study areas, we chose to focus on microneighborhoods within the control area where local gang cliques were active.

Research Design

A community-based sample of males, skewed toward youth that spend time out on the streets, was systematically recruited for interviews. Care was taken to frame similar samples and balance interviewers' time across the areas to attain a comparative sample of youth encountered via door-to-door solicitation and approaching youth on the street. Interviewers were blind to the study hypotheses.

The research design incorporated two levels of control. The first one compared responses from youth in areas with an active gang injunction to youth living in similar areas without one. Second, responses from youth interviewed in each area that were not involved in a gang were used to control for area-specific influences originating from each neighborhood's unique characteristics and history. This research approach was designed to increase the statistical power for the hypotheses tested by comparing across areas while controlling for extraneous area influences.

Respondent Recruitment

Field researchers visited every household in the microneighborhoods, speaking with the residents or leaving a flyer, recording households where males between the ages of 14 and 21 years lived and screening interested youth on the study eligibility criteria. Field researchers also engaged youth walking or hanging out in the neighborhood who seemed to be in the appropriate age range. At first, interviewers met considerable resistance; over time, neighborhood residents reacted more positively as they better understood the interviewers' purpose. The intent was to oversample street-oriented youth in the study areas.

A brief screening questionnaire was administered to determine whether the youth met the eligibility criteria, including male, 14–21 years old, living or hanging out in the study area regularly for 2 years or more, and indicating some awareness of a gang or other social group in his area. Interviews were conducted only after informed consent was administered according to Institutional Review Board guidelines to eligible youth and to the parent of any youth younger than 18 years of age. Respondents were paid \$20 for the interview. Although the median interview time was 80 minutes, they varied in length from 50 to 140 minutes. Efforts to complete the interviews continued daily over two 5-month periods during the spring and summers of 2007 and 2008. A total of 6 male and 14 female interviewers, of whom 16 were Latino, were employed over these two summers. Seventeen interviewers grew up or currently lived or worked in similar areas. No significant main effects or interactions were associated with interviewer ethnicity or gender on the levels of criminal or violent behavior self-reported by the respondents.

Description of the Sample

Interviewers screened 673 youth, 15% ($n = 101$) of whom were not eligible for the study because they did not meet the eligibility requirements. An additional 4.3% ($n = 29$ cases) were not assigned to an interviewer because they were screened too late in the process. A total

of 543 cases were assigned to interviewers. Interviewers completed 416 (77%) interviews. Among the cases not completed, 91 (16.8%) were refusals; 9 cases (1.7%) were dropped because only one interview per household was allowed; 5 cases (0.9%) were incomplete because the youth left the area; 2 cases (0.4%) were incomplete because they required languages we did not have the resources to provide; 9 cases (1.7%) were found ineligible after being assigned to an interviewer because of misrepresentation of age or residence; and 11 cases (2.0%) were dropped because of issues that arose during the interview including inadequate comprehension, uncooperative behavior during the interview, or risky or unusual circumstances. By study area, 77% of the cases were completed in south, 73% in north, and 79% in control. These completion rates do not vary across the study conditions ($X^2 = 1.54$, degrees of freedom [df] = 2, $n = 543$, $p = .462$).

Gang Involvement

Given its importance, we used two methods to identify gang affiliation. First, each respondent was asked to name the groups they had some involvement with, such as competitive teams, organized clubs, street gangs, tagger and skater groups, party posses, and crews. Respondents could use a generic label for their group such as my “homies” or “friends” so long as the interviewer understood the kind of group. If they mentioned multiple groups of the same type, then the interviewer asked the respondent to choose the one that was “most important to you and to who you are.”

Respondents next answered a series of questions about each group. They indicated their level of involvement by placing themselves on a target scale adapted from Esbensen’s work (see Esbensen and Osgood, 1999; Esbensen et al., 2001). For this study the rings of the target were labeled a leader, very active, active, rarely active, in the group but no longer active, or out of the group. Youth who indicated any level of involvement in a street gang on this measure were coded as gang involved.

Second, we included a series of questions developed by the Eurogang Network that measures gang involvement indirectly, through group attributes (see Eurogang Manual, pp. 19–20 at umsl.edu/~ccj/eurogang/EurogangManual.pdf; also see Decker and Weerman, 2005; Esbensen et al., 2001; Klein and Maxson, 2006: 3–4; Matsuda, Esbensen, and Carson, 2012). Our self-report method and the Eurogang Network definition were not in agreement for 105 of the 416 cases (25%). An interviewer and a study administrator reviewed the inconsistent cases to determine gang involvement. The independent reviewers agreed on their determination of gang status for 86% of these cases and disagreed on 14% (15 cases). The disagreements were resolved through discussion. The number of cases so examined did not vary by study condition ($X^2 = 2.392$, $df = 2$, $n = 416$, $p = .302$).

In all, 112 respondents were coded as gang-involved youth and 304 respondents were classified as nongang. The nongang category included street-oriented groups, such as a variety of crews and posses, as well as informal groups of friends. The percentage of youth

involved in a street gang did not vary by study area ($X^2 = 0.326$, $df = 2$, $n = 416$, $p = .850$). Overall, 27% of the sample indicated some recent association with a gang and 73% were associated with other kinds of peer groups.

Demographics, Custody, and Local Violence by Area

The average age of the respondents was 17.3 years, 97% were Latino, and 87% were born in the United States as shown in Table 2. No area differences were found on any indicators except that more gang-involved youth in the control area had witnessed violence in their neighborhood than gang-involved youth in the injunction areas ($X^2 = 5.590$, $df = 1$, $p = .018$). One possible interpretation of this difference is that youth in areas with gang injunctions were less likely to witness overt public violence because of the injunctions' no association clauses, which may have reduced the violence or moved it to less public contexts. As expected, the gang-involved respondents in each area indicated higher levels on each indicator than the nongang respondents (all X^2 analyses showed differences beyond $p = .020$); gang-involved youth were at least five times more likely to have spent a night in custody than nongang respondents, were almost universally involved in violent crime (92%), and had frequently been a victim of violence in their neighborhood (84%).

Differences in Level of Service Use

Prior to the interviews, researchers developed a list of services near each study area for "help finding employment, job training, education, health issues, or personal issues" especially those that were gang friendly or included outreach to gang-involved youth as part of their mission.³ The areas had different levels of service available, and law enforcement agencies did not incorporate services equally in their CGI implementation. Awareness of services was nearly unanimous among respondents. In the south, only 4% of the gang-involved youth and 7% of the nongang youth were unaware of at least one local service program. In the north and the control areas, no gang-involved youth were unaware, and only 3% to 4% of the nongang youth were unaware.

Use of services by gang-involved youth did vary across study areas. The percentage of youth interviewed who indicated using a service on at least one occasion was higher among the gang-involved than among the nongang youth in both the south and control areas. In the south, 70% of gang-involved and 47% of nongang youth reported using a service

3. A research assistant began this process by visiting a known program in each area. Providers there were asked about inclusion of gang-involved youth and which other services in the area were available to these youth. The process snowballed to other programs. Also, blanks were provided at the end of each area list for youth to write in any service programs they were aware of that were missing. Sixteen youth (6 from the south, 4 from the north, and 6 from the control) listed additional services that were vocational, educational, or recreational. As a reliability check, some service programs that did not exist in the study areas were included in the list. In only five instances (1%), a youth stated he had used one of these services, suggesting that the responses were fairly reliable.

T A B L E 2

Demographic Characteristics of the Youth Interviewed

	South Area Injunctions			North Area Injunctions			Control Area			Gang vs. Nongang	Area Difference
	Mean Nongang n = 128	Mean Gang n = 46		Mean Nongang n = 68	Mean Gang n = 28		Mean Nongang n = 108	Mean Gang n = 38			
Age	17.01	18.02	Mean	17.10	17.11		17.51	17.40		ns	ns
Hispanic ethnicity	% yes 98.0%	100.0%	% yes	94.0%	93.0%		96.0%	100.0%		ns	ns
Born in United States	% yes 85.0%	78.0%	% yes	88.2%	92.9%		90.7%	89.7%		ns	ns
Ever in custody overnight	% yes 4.0%	35.0%	% yes	7.0%	43.0%		9.0%	45.0%		χ^2 comparing gang to nongang within area range from 30.34 to 17.16, $p < .001$	ns
Ever commit a violent crime	% yes 61.0%	91.0%	% yes	59.0%	93.0%		56.0%	92.0%		χ^2 comparing gang to nongang within area range from 15.84 to 10.69, $p < .001$	ns
Ever a victim of violence	% yes 62.0%	83.0%	% yes	50.0%	89.0%		59.0%	84.0%		χ^2 comparing gang to nongang within area range from 12.92 to 6.27, $p = .016$	ns
Ever witness local violence	% yes 69.0%	80.0%	% yes	66.0%	71.0%		67.0%	95.0%		Differs only in control, $\chi^2 = 11.504, df = 1, p = .001$	$\chi^2 = 6.80, df = 2, p = .033$

($X^2 = 6.990$, $df = 1$, $p = .008$). Similarly, in the control area, 79% of gang-involved and 56% of nongang youth reported using a service ($X^2 = 6.040$, $df = 1$, $p = .014$). Only in the north did gang and nongang respondents show no difference in the use of services (54% of the gang-involved and 50% of the nongang respondents).

We are aware of two possible reasons for this difference in accessing services. First, we selected the south and control locations as study areas in part because of their close proximity to highly respected gang-focused services. In contrast, the service opportunities in the north were less gang focused. Second, based on our conversations with local police and city attorney contacts, the areas including the south and control were part of a criminal justice program that actively encouraged youth arrested for gang-related issues to seek services.

Deterrence Measures

Youth were asked how many times would “the police find out and you would get in trouble” if they committed various crimes on ten different occasions in their neighborhood. Youth were asked about shoplifting, driving while drunk or high, tagging or writing graffiti, stealing a car, breaking into a building to steal something, trespassing on private property, hitting someone in a fight, seriously beating someone up, intimidating or challenging someone that might tell authorities about something illegal that you or a friend did, and selling drugs in your neighborhood. Whereas the level of expected consequences varied by crime, youth who estimated a higher likelihood on one type of crime tended to do the same for other crimes (Pearson r 's were all statistically significant ranging from 0.22 to 0.60). As a result, we formed a general scale of expected consequences across the 11 crimes ($\alpha = 0.86$) and for a subset of three violent activities ($\alpha = 0.72$).

Measures of Cohesion and Street Cohesion

Following the lead of past gang researchers (Klein, 1971; Klein and Crawford, 1967), cohesion was worded as follows: “In some groups, the members meet or get together frequently, but in other groups, the members rarely meet or get together at all. Recently, how often do you meet or get together with members of your group?”⁴ To measure street cohesion, respondents were asked: “When you are with members of <group> how often are you outside on the streets, in malls, in parks or in cars?” We are reminded by Decker, Bynum, and Weisel (1998) that “meeting” can imply something more organized than many gangs have. We attempted to dilute this impression by including the clarification “get together.”

4. See Hennigan and Spanovic (2012) for a discussion of various conceptual definitions of cohesion that capture a person's relationship to his group in terms of agency (being together or acting together as a group) or essence (being similar in terms of looks or actions or racial-, ethnic-, or gender-related categories). Street gang cohesion has been primarily conceptualized in terms of agency rather than of essence, based in part on Malcolm Klein's early work (with Crawford) in 1967 and in 1971.

Measures of Strength of Social Identity

Four items from the “identity” subscale of the collective self-esteem scale developed by Luhtanen and Crocker (1992; see also Leach et al., 2008) were adapted for use in this population. The items included were as follows: Overall (group) has very little to do with how I feel about myself; (group) is an important reflection of who I am; (group) is unimportant to my sense of what kind of person I am; and in general, belonging to (group) is an important part of my self-image. These four items were highly correlated ($\alpha = 0.79$) and were combined to form a scale.⁵

Measures of Criminal and Violent Activities

Each respondent’s involvement in criminal activities and violence over the prior 6 months were measured with the frequently used self-report protocol originally developed for the National Youth Study (Huizinga and Elliott, 1986) and subsequently revised and used in the causes and correlates studies (see Esbensen and Huizinga, 1993; Lahey, Gordan, Loeber, Stouthamer-Loeber, and Farrington, 1999; Loeber and Farrington, 1998; Thornberry et al., 2003). Here, the level of involvement in criminal activities was defined using the same list of activities, with a few exceptions, employed by Thornberry et al. (2003, see Appendix A of that book). Our index of 31 items includes two rather than four items for theft; sexual assault and prostitution were omitted; and questions about tagging, intimidation, and extortion were added. The subset of six violent activities was the same except that sexual assault was omitted and witness intimidation was added. When scored, two variety indexes were created: An index of criminal activities counted how many of the listed activities the youth admitted doing over the prior 6 months, and a violence index was created by counting how many violent activities the youth admitted doing over the prior 6 months. See Thornberry and Krohn (2000) and Sweeten (2012) for discussions of the validity of this measurement approach. The overall median variety score among the nongang respondents was 4.1 for general delinquency and 0.9 for violent delinquency. The medians for gang-involved respondents was more than double, 9.3 for general delinquency and 1.9 for violent. The scores were logged to improve the distribution of these variables in analyses, but the unlogged scores are given in Table 4 below.

Self-Report Measures and Defensive Responding

Many researchers in this area have agreed that self-reports are a valid and useful method of assessing criminal activities (Hindelang, Hirschi, and Weis, 1981; Huizinga and Elliott, 1986; Sweeten, 2012; Thornberry and Krohn, 2000) so long as potential sources of bias are unrelated to the study conditions. We examined possible differential bias in self-reporting that might confound our determination of gang status and other measures by including a

5. Early on, the interviewers noticed difficulties with the reversed items. They were instructed to be sure that the respondents noticed and understood the directional variations.

short version of the Marlowe–Crowne scale (Strahan and Gerbasi, 1972) that is designed to reveal defensiveness or a tendency to bias responses toward a favorable self–presentation—sometimes known as the “lie scale.”⁶ We found no evidence that gang members were less forthcoming than nongang respondents ($F = 1.424$, $df = 1,410$, $p = .233$), no evidence of differences across the study areas ($F = 0.328$, $df = 2,410$, $p = .720$), and no interaction between gang membership and neighborhood condition ($F = 1.126$, $df = 2,410$, $p = .325$) that could confound the results.

We found that defensiveness as measured by the Marlowe–Crowne scale is significantly correlated with age ($r = 0.125$, $p = .011$; older respondents showed more defensiveness than younger ones) and with criminal behavior ($r = -0.247$, $p < .001$) and violence ($r = -0.221$, $p < .001$), suggesting respondents with higher levels of defensiveness reported lower levels of involvement in criminal activities. In their thorough review of the validity of measures of criminal behavior, Thornberry and Krohn (2000) did find some evidence of “either concealing or forgetting past criminal behavior” that resulted in underreporting. However, they concluded that for analytical purposes, the self-report method is acceptably “accurate and valid” (p. 58) so long as the bias is not differential across comparisons. Similarly, Webb, Katz, and Decker (2006) found a modest decrement in the self-reports but no differential validity for gang versus nongang respondents on self-reported drug use. We reach the same conclusion because we find evidence suggesting some youth underreported criminal activities, but no evidence that this happened more frequently among gang than nongang youth or more frequently in one study area than another.

Incidents of Violent Gang Crime Reported to Law Enforcement

Gang crime incident data recorded by law enforcement are coded as gang related based on information gathered at the scene from victims, witnesses, evidence, or other intelligence garnered about each incident. Violent gang crime reported to the police is an alternative way to examine how levels of gang-related violent activity differed in the study areas before and after the gang injunctions studied.

The city of Los Angeles maintains a detailed geocoded database of gang crime data. We obtained crime incident data over a 5-year period beginning 2 years prior to the injunctions through 2 years after implementation. The injunctions studied were ordered during October 2006 (south 1), January 2007 (south 2), and February 2007 (north). The reference year is defined as October 2006 to September 2007. Two prior years were defined: prior 2

6. Questions about gang membership are potentially reactive. Relative to alternatives such as asking an observer (parent, teacher, or police), past research has suggested that asking youth directly (in a confidential setting) is the better way of determining gang membership (Craig, Vitaro, Gagnon, and Tremblay, 2002; Curry, 2000). Although clearly not 100% accurate, simple straightforward questions asked of youth in the context of a properly grounded interview have been shown to be a valid and reliable approach to measure gang involvement (Esbensen and Winfree, 1998: 515; Thornberry et al., 2003: 189).

(October 2004 to September 2005) and prior 1 (October 2005 to September 2006), and 2 subsequent years were defined: after 1 (October 2007 to September 2008) and after 2 (October 2008 to September 2009).

Analysis Plan

We conducted the analyses in three stages. First, we established the relationship between the proposed mediating variables (including two deterrence measures, two cohesion measures, and one social identity measure) and criminal and violent behavior among the nongang and gang youth interviewed (collapsed across areas). Based on past research, we expected the influence of mediating variables to differ between the gang and nongang respondents. In particular, we expected that deterrence would be more important for the nongang respondents and that group cohesion and social identity would be more important among the gang-involved respondents for mediating crime and violence. To test this expectation, we ran two multigroup structural equation analyses, one restricting the parameters to be the same for gang and nongang and the other allowing the parameters to vary. We used the goodness-of-fit criteria recommended by Hu and Bentler (1999).⁷ Given that all data were collected as one panel, the overall causal order (between the set of mediating variables and crime) implied in the models is based solely on our theoretical framework.

The second stage used analyses of variance (ANOVAs) to test for area differences among gang members (in south, north, and control) on the proposed mediators and outcomes using nongang respondents to control for extraneous area influences. Interactions across areas were predicted. Proposed mediators that show a significant interaction were tested further with a set of orthogonal planned comparisons to determine (a) whether respondents in the two areas under a gang injunction (south and north) differ from those in the control area (i.e., that CGIs in both areas affect changes that support lower crime and violence relative to the control area), (b) whether the differing injunction approaches were associated with lower crime in the south and higher crime in the north, and (c) specifically whether the implementation approach taken in the south was associated with lower crime than in the control area. Differences in self-reported criminal and violent behavior across study areas are examined and interpreted in the context of the proposed mediating variables.

Finally, incidents of violent gang crime reported to the police in the safety zones of the gang injunctions studied in the north and south were compared with the citywide trends over 2 years before and 2 years after the reference year (during which the injunctions were obtained and implemented). Violent gang crime was defined as homicide, aggravated assault, robbery, and rape coded by the Los Angeles Police Department (LAPD) as gang involved. To allow simple visual comparisons between the trends over the 2 years prior and

7. A chi-square value that is nonsignificant, root mean square error of approximation (RMSEA) < .08, and confirmatory fit index (CFI > .95) represents good fit (Hu and Bentler, 1999).

T A B L E 3 a

A Bivariate Correlations in the Nongang Sample

		Correlations ^{a,b}						
		Violence		Street	Social	Criminal		
		Deterrence	Deterrence	Cohesion	Cohesion	Identity	Activities	Violence
Deterrence	Pearson correlation	1	.845**	.036	-.052	.049	-.317**	-.186**
	Significance (two-tailed)		.000	.533	.370	.393	.000	.001
Violent deterrence	Pearson correlation	.845**	1	.022	-.052	.016	-.310**	-.195**
	Significance (two-tailed)	.000		.703	.369	.787	.000	.001
Cohesion	Pearson correlation	.036	.022	1	.481**	.155**	-.060	.033
	Significance (two-tailed)	.533	.703		.000	.007	.301	.572
Street cohesion	Pearson correlation	-.052	-.052	.481**	1	.268**	.116**	.100
	Significance (two-tailed)	.370	.369	.000		.000	.042	.082
Social identity	Pearson correlation	.049	.016	.155**	.268**	1	-.043	-.052
	Significance (two-tailed)	.393	.787	.007	.000		.452	.365
Criminal activities	Pearson correlation	-.317**	-.310**	-.060	.116*	-.043	1	.643**
	Significance (two-tailed)	.000	.000	.301	.042	.452		.000
Violence	Pearson correlation	-.186**	-.195**	.033	.100	-.052	.643**	1
	Significance (two-tailed)	.001	.001	.572	.082	.365	.000	

^aListwise *N* = 304.

^bGang = .00 nongang.

p* < .05, *p* < .01 (two-tailed).

the 2 years after, we calculated the percent of incidents each year prior to and after the reference year.

Results

Proposed Mediation of Crime and Violence

The correlations among the proposed mediating variables and criminal and violent activities for the gang and nongang respondents are given in Tables 3a and 3b.

Criminal activity. Separate structural equation models (SEMs) were constructed to test the predicted relationships simultaneously among the three proposed mediators and criminal or violent behavior within each group of respondents. The first analysis tested a multigroup (gang vs. nongang) model that assumes that the parameters relating the predictor and outcome variables are the same for the gang and nongang respondents. This restricted model was not a good fit to the data ($X^2 = 19.520, df = 9, p = .021$), suggesting that the parameters do differ. The second multigroup model tested allowed the parameters estimating the influences that deterrence, cohesion, and social identity have on crime among gang and nongang respondents to vary. The unrestricted model was a good fit ($X^2 = 2.098, df = 2, p = .350, CFI = 1.00, RMSEA = 0.011$), confirming the hypothesis that these variables differ in their relationship to crime among gang and nongang respondents.

TABLE 3b

B Bivariate Correlations in the Gang Sample

		Correlations ^{a,b}						
		Violence		Street	Social	Criminal		
		Deterrence	Deterrence	Cohesion	Cohesion	Identity	Activities	Violence
Deterrence	Pearson correlation	1	.811**	-.150	-.285**	-.208*	-.236*	-.179
	Significance (two-tailed)		.000	.114	.002	.028	.012	.060
Violent deterrence	Pearson correlation	.811**	1	-.058	-.193*	-.159	-.341**	-.209*
	Significance (two-tailed)		.000	.544	.042	.093	.000	.027
Cohesion	Pearson correlation	-.150	-.058	1	.695**	.490**	.217*	.224*
	Significance (two-tailed)		.114	.544	.000	.000	.022	.018
Street cohesion	Pearson correlation	-.285**	.193*	.695**	1	.525**	.315**	.259**
	Significance (two-tailed)		.002	.042	.000	.000	.001	.006
Social identity	Pearson correlation	-.208*	-.159	.490**	.525**	1	.323**	.490**
	Significance (two-tailed)		.028	.093	.000	.000	.001	.000
Criminal activities	Pearson correlation	-.236*	.341**	.217*	.315**	.323**	1	.706**
	Significance (two-tailed)		.012	.000	.022	.001	.001	.000
Violence	Pearson correlation	-.179	.209*	.224*	.259**	.490**	.706**	1
	Significance (two-tailed)		.060	.027	.018	.006	.000	.000

^aListwise $N = 112$.

^bGang only = 1.00 nongang.

* $p < .05$, ** $p < .01$ (two-tailed).

The model estimated for gang is given in Figure 1a, and the model estimated for nongang is in Figure 1b.⁸ Among the gang-involved respondents, only strength of social identity was significantly associated with crime (0.213, $p < .050$). Follow-up tests showed that the relationship between cohesion and criminal behavior (0.052, $p = .033$) and between street cohesion and criminal behavior (0.076, $p = .025$) was mediated by social identity.⁹ Among the nongang respondents, deterrence (-0.301, $p < .001$) was significantly related to crime and social identity was not. The nongang respondents included youth involved in a variety of groups including nongang crews and other conventional friendship groups. Perhaps for this reason the two types of cohesion had differing relationships with crime such that street cohesion (time together on the street) was positively related (0.179, $p < .010$), whereas general cohesion (time together anywhere) was negatively related to crime (-0.125, $p < .050$).

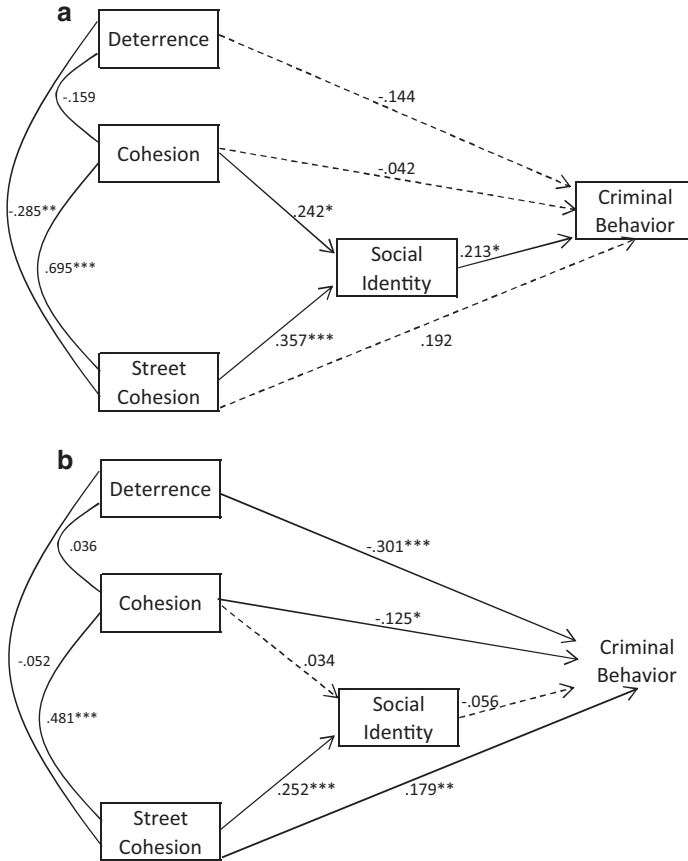
Violence. Similar but stronger results were observed for violent activities. The model estimated for gang is given in Figure 2a, and the model estimated for nongang is in Figure 2b.

8. All parameters shown are standardized.

9. The SPSS macro (SPSS Corporation, Chicago, IL) by Preacher and Hayes (2004) is used to assess the extent to which strength of social identity mediates a relationship between cohesion and criminal and violent activities or vice versa in the gang models.

FIGURE 1

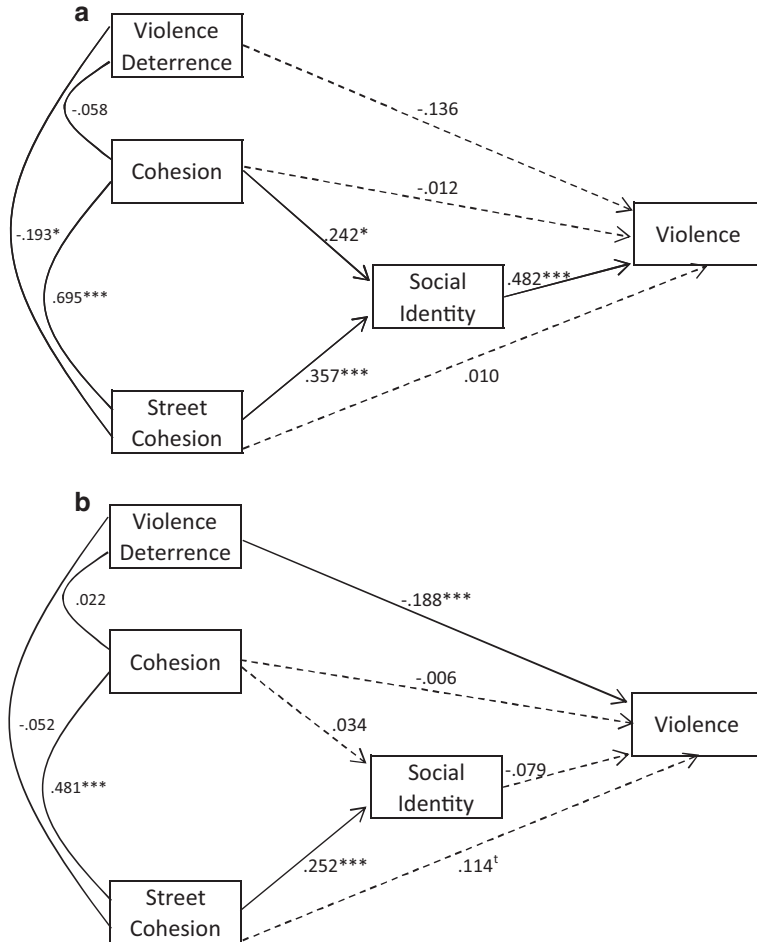
a. Explanation of Gang Criminal Activities. b. Explanation of Nongang Criminal Behavior



The first multigroup analysis found that the restricted model was not a good fit ($X^2 = 31.250, df = 9, p < .001$), whereas the unrestricted model was a good fit ($X^2 = 1.248, df = 2, p = .535, CFI = 1.00, RMSEA = 0.000$). The findings confirm that the proposed mediators are differentially related to violence among the gang and nongang respondents. For gang respondents, social identity was strongly related to involvement in violent activities ($0.482, p < .001$) with no evidence that the perceived likelihood of getting caught and punished for violent activities served as a deterrent ($-0.136, ns$). A test of mediation effects confirmed that social identity mediated the relationship between cohesion ($0.116, p = .021$) and street cohesion ($0.172, p < .001$) with violent activities. For nongang respondents, only

FIGURE 2

a. Explanation of Gang Violent Activities. b. Explanation of Nongang Violent Activities



deterrence (the perceived likelihood of getting caught and punished) was significantly related to violent activities ($-0.188, p < .001$).

Strength of group identification was related to crime only among the gang-involved youth where criminal activities are normative for group members. The modeling results thus support the contention that criminal and violent activities among gang-involved youth are strongly related to cohesion (general and street specific), mediated by strength of identification. These findings do not support the supposition that deterrence-related

beliefs (as measured in this study) are associated with less involvement in criminal or violent activities among gang-involved youth. Practically speaking, then, a gang injunction's impact on gang identification and cohesion seems to be of greater importance in terms of its potential for reducing criminal activities than a gang injunction's impact on beliefs about the likelihood of getting caught and punished—deterrence. Next, we tested more specific hypotheses across the study areas using planned comparisons.

Differences Across Study Conditions

Deterrence hypothesis. Gang-involved youth reported lower estimates of the likelihood of being caught and punished for criminal activities in general and for violent activities in particular than nongang youth. The main effect for gang status on each deterrence variable was significant ($F = 41.070$, $df = 1,410$, $p = .001$ and $F = 26.550$, $df = 1,410$, $p = .001$, respectively; see Table 4) with no interactions across the study areas. We found no evidence that gang-involved youth interviewed in the CGI study areas had higher expectations of being caught and punished for criminal or violent activities than gang-involved youth in the control area with no gang injunction.

Cohesion hypothesis. Gang respondents reported lower levels of cohesion, both in a street context ($F = 18.820$, $df = 1,410$, $p = .001$) and in general ($F = 30.060$, $df = 1,410$, $p = .001$), than the nongang respondents. This observation is qualified by a significant area by gang status interaction ($F = 4.700$, $df = 2,410$, $p = .010$) for street cohesion, but not for group cohesion in general. The difference between gang and nongang street cohesion was notably larger in the CGI areas where the gang-involved youth reported less street time together than their counterparts in the control area. The planned comparisons confirmed that street cohesion among gang-involved youth in both CGI areas was lower than the level found in the control area ($t = 2.50$, $df = 112$, $p = .014$) with no significant differences between the north and south injunction areas on street cohesion.

The results for general cohesion were quite different. No area differences were observed on general cohesion. Although gang-involved youth in the CGI areas got together less frequently in public settings than their counterparts in the control area, presumably in response to the no association prohibition in the injunction orders, there was no evidence that the gang-involved youth in the injunction areas got together less frequently *overall* than the gang-involved youth in the control area.

Social identity hypothesis. In the structural equation modeling discussed earlier, strength of identification with one's group was shown to be a strong correlate of criminal and violent activities for gang-involved youth. We found a main effect for gang versus nongang status on strength of identification ($F = 63.160$, $df = 1,410$, $p = .001$), but more importantly, the magnitude of these differences varied across the study areas ($F = 3.090$, $df = 2,410$, $p = .046$). Planned comparisons of the means show that gang identification was marginally ($t = 1.82$, $df = 109$, $p = .072$) weaker in the south than in the north and clearly weaker in the south ($t = 2.00$, $df = 96$, $p = .049$) than in the control area. This finding is consistent

T A B L E 4

Means and Standard Error for Proposed Mediating Variables by Area and Gang Involvement with Results of Statistical Tests^a

	South Area			North Area			Control Area			Planned Comparisons ^b		
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	CGI vs. Control	South vs. North	South vs. Control	
	n = 128	n = 46	n = 68	n = 28	n = 108	n = 38	n = 108	n = 38				
Deterrence	Mean	4.50	3.08	4.78	3.24	4.40	2.58	$F(1,410) = 41.07, p = .001$	ns	ns	ns	ns
	SE	0.21	0.30	0.28	0.35	0.22	0.26					
Deterrence (violence)	Mean	4.27	2.96	4.84	3.32	4.21	2.30	$F(1,410) = 26.55, p = .001$	ns	ns	ns	ns
	SE	0.26	0.40	0.33	0.44	0.27	0.31					
Group cohesion: street	Mean	4.67	3.43	4.79	3.89	4.44	4.36	$F(1,410) = 18.82, p = .001$	$t = 2.50, df = 112, p = .014$	ns	$t = 2.56, df = 114, p = .012$	
	SE	0.12	0.30	0.15	0.32	0.13	0.29					
Group cohesion: general	Mean	5.02	3.63	5.07	4.50	4.85	4.11	$F(1,410) = 30.06, p = .001$	ns	ns	ns	ns
	SE	0.10	0.29	0.15	0.31	0.13	0.30					
Identification with group	Mean	4.24	2.72	4.24	3.30	4.10	3.30	$F(1,410) = 63.16, p = .001$	ns	$t = 1.82, df = 109, p = .072$	$t = 2.00, df = 96, p = .049$	
	SE	0.10	0.18	0.13	0.21	0.11	0.27					
Criminal activities ^a	Mean	1.47	2.09	1.26	2.26	1.38	2.25	$F(1,410) = 114.38, p = .001$	ns	$t = 2.16, df = 143, p = .032$	ns	ns
	SE	0.07	0.11	0.08	0.08	0.07	0.08					
Violent activities ^a	Mean	0.47	0.82	0.34	1.03	0.37	0.91	$F(1,410) = 84.66, p = .001$	ns	$t = 2.33, df = 104, p = .022$	ns	ns
	SE	0.04	0.09	0.05	0.09	0.04	0.10					

Note: SE = standard error.

^aA total of 11 missing values was filled with the mean within area by gang status for deterrence ($n = 1$), violent deterrence ($n = 2$), meeting in a street context ($n = 6$), and meeting with group ($n = 2$). Imputing means to fill these scores did not change the results of the analyses.

^bThe planned t tests were adjusted for unequal variances when a Levine test of the homogeneity of the variances indicated the need.

with the hypothesis that a CGI implementation approach that focuses (to a greater extent) on individuals may weaken social identity. These results suggest that the CGI implementation approach in the south (where both getting together on the street and gang identification were weaker than in the control) has a better chance of reducing crime and violence than in the north.

Involvement in criminal and violent activities. Each respondent was asked about his personal involvement in criminal and violent activities over the 6 months prior to the interview. As expected, gang-involved youth reported much higher involvement in criminal activities ($F = 114.380$, $df = 1,410$, $p = .001$) and in violent activities ($F = 84.660$, $df = 1,410$, $p = .001$) than nongang youth. Further, the area by gang status interaction was significant for violent activities ($F = 3.060$, $df = 2,410$, $p = .048$). The planned comparisons did not show that violence was lower in the two CGI areas relative to the control area. Rather, the comparisons found that criminal ($t = 2.16$, $df = 143$, $p = .032$) and violent activities ($t = 2.33$, $df = 104$, $p = .022$) were lower among gang involved youth in the south CGI area than in the north CGI area.¹⁰

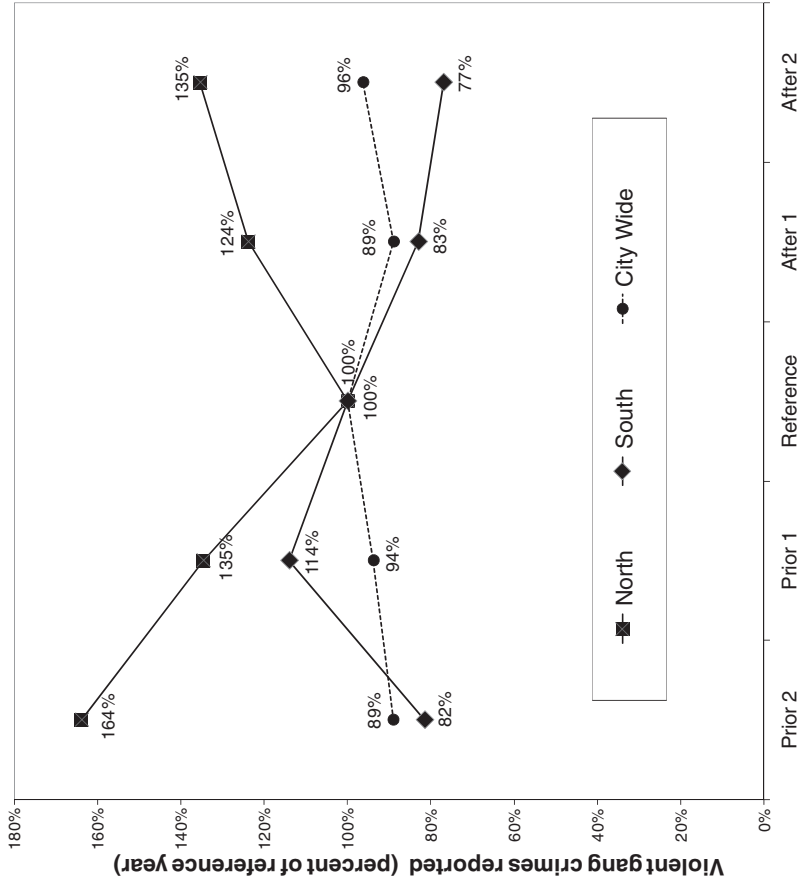
Trends in incidents of violent gang crime reported to law enforcement. Law enforcement gang crime incident data provided an additional check on gang crime in the north and south injunction areas before and after the injunctions were obtained. In Figure 3, we have plotted the levels of violent gang crime in the north and south injunction areas 2 years prior to and 2 years after the reference year. The citywide figures are included for comparison.

The trends suggest that violent gang crime trended down in both the north and the south during the year the injunctions were first implemented (the reference year) despite slightly higher violent gang crime citywide. Over the next 2 years, however, the trends diverge. Violent gang crime trended up in the north and down in the south. These trends are generally consistent with the findings reported earlier: (a) The structural modeling analyses linked strength of gang social identity to crime and violence; and (b) the planned comparisons confirmed that gang identification in the south was weaker than in the control area, but not in the north. Additional self-reported gang-related criminal and violent activities were lower in the south than in the north over the interview period 6 to 17 months after the injunctions were first implemented. The observation that violent gang crime trended up in the north but not in the south is consistent with the interview findings.

10. We checked to determine whether this comparison was affected by the inclusion of youth arrested and held in controlled settings during the 6-month self-report period. The same analyses were repeated dropping nine respondents (two from the north, three from the south, and four from the control), who were in prison, jail, juvenile hall, or probation camp for more than a third of the self-report period. The results reported earlier were replicated. The gang status by area interactions was statistically significant for both criminal ($F = 3.150$, $df = 2,401$, $p = .044$) and violent activities ($F = 3.630$, $df = 2,401$, $p = .028$). The planned comparisons confirmed lower levels of criminal ($t = 2.73$, $df = 152$, $p = .007$) and violent activities ($t = 2.51$, $df = 401$, $p = .012$) among gang respondents in the south than in the north, and they show marginally significant indications of lower levels of criminal ($t = 1.94$, $df = 157$, $p = .054$) and violent activities ($t = 1.91$, $df = 401$, $p = .056$) in the south relative to the control area.

FIGURE 3

Level of Violent Gang Crimes Reported to LAPD in the Study Zones Expressed as the Percentage of the Reference Year (Oct. 2006 through Sept. 2007)



Note. All CGIs studied were obtained, and implementation began in the reference year.

Discussion and Conclusions

This study used social-psychological and criminological theory to extend our understanding of the range of effects that gang injunctions may have on gang-involved youth and to develop clues as to the processes behind them so that CGIs may be planned and implemented more effectively. Our comparison areas varied by the size of the safety zone and by the inclusion (in the south and the control) of other initiatives designed to leverage the “stick” of possible consequences of an arrest with the “carrot” of easily accessible gang-focused services to help youth move away from gang involvement. In short, the south CGI focused on individual change (at least this focus was a higher priority than elsewhere). In contrast, the north area CGI was broad and focused primarily on gang suppression.

Whereas past research on the effectiveness of CGIs has primarily studied criminal behavior, a chief concern here is the potential *mediators* of criminal activities that may be influenced by the way gang injunctions are implemented. In the structural equation models developed, the strength of gang social identity was related to criminal and violent activities and mediated the relationship between gang cohesion and these activities. The strength of gang identification was weaker in the south injunction areas than in the control. Comparisons confirmed that self-reported crime and violent activities among the gang-involved respondents were lower in the south than in the north. Corresponding to these findings, plots of the incidents of violent gang crime reported to the police after the injunctions were implemented suggested that violence rose in the north and decreased in the south relative to the citywide average over the 2 years after the injunctions were implemented. In short, we found no support for the deterrence hypothesis. The findings suggest that disrupting gang cohesion by limiting street time alone does not seem to be an effective approach. We found some support for the social identity hypothesis, suggesting that injunction approaches that include steps to dilute the focus on the gang as a group in favor of individual concerns may decrease gang crime.

Taken together, these findings support the contention that gang injunction implementation can have an impact on the strength of identification with the gang, which in turn mediates crime and violence. This finding is consistent with social-psychological theories that explain how behaviors that are normative within a group (as criminal activities are for street gang members) are influenced more by the strength of one’s identification with the group than by one’s own unique individual concerns or proclivities. (See Hennigan and Spanovic, 2012, for an expanded discussion of this point.)

Deterrence may have little impact in contexts where the calculus of risks is weighed from a group perspective rather than from an individual perspective and the norms of the group call for violence. Where gang members are involved, we argue that a rational choice perspective may be trumped by group level concerns, especially among those where gang social identity is relatively strong. The finding that personal estimates of the likelihood of getting caught and punished for criminal behavior were significantly associated with

criminal activities primarily among the nongang youth is consistent with prior research that questioned the efficacy of deterrence when targeting high-crime populations such as street gangs (see Loughran et al., 2012; Maxson et al., 2011; Watkins et al., 2008). Stafford and Warr (1993) speculated that when delinquency is understood as a group phenomenon, a heightened sense of anonymity may encourage rather than discourage crime. Social identity theorists elaborate on the sense of anonymity that increases behavior consistent with the norms of a group with which a person is strongly identified (Hennigan and Spanovic, 2012; Postmes and Spears, 1998). One way to mute the identity dynamics of gang involvement is to concentrate a youth's attention on *individual* concerns rather than on the goals of the group.

Although the evidence here is correlational, the findings are consistent with the notion that the threat of arrest and punishment has less impact on youth involved in a gang than on other youth in the same neighborhoods. Instead, it is the unintended impact a CGI may have on gang cohesion, and especially gang identification, that likely is more important than an individual's own concern for getting arrested and incarcerated. CGI implementation approaches that focus on the gang as a group may strengthen the salience of the gang and members' allegiance to the gang, which is counterproductive to the goal of reducing violence. Gang injunctions implemented as part of a wider effort to reduce the influence gangs have on members and potential members may provide leverage toward personal development (pressure access to education, employment, and counseling for positive personal growth) that can strengthen individuals and weaken the influence of the gang in the long run. Ignoring these dynamics may perpetuate a cycle of suppressing gang violence in the short run while leaving intact or strengthening gang cohesion and identity in the long run. This line of thinking suggests that gang cohesion and gang identification are aspects that should be considered when interventions such as a gang injunction are undertaken.

Growing insights into the processes of gang disengagement (see Pyrooz and Decker, 2011; Pyrooz, Decker, and Webb, 2010; Pyrooz, Sweeten, and Piquero, 2012) have important implications for our understanding of the long-term effects of CGIs and other policies that focus on the gang (as a group) rather than on individuals. If a gang injunction is focused primarily on suppression, then this study suggests the result may be a strengthening of overall gang identification and cohesion. The implication of strengthening these ties or "embeddedness" in the gang is likely to increase and prolong gang involvement. Alternatively, if a gang injunction is focused primarily on individuals, using arrests as leverage to move individuals toward services, education, employment, or other legal paths towards self-sufficiency, then the result may be a gradual weakening of gang ties. There is much yet to be learned about the process of gang disengagement. Contrary to popular beliefs, research suggests that gang desistance is frequent, ongoing, and gradual, and that the length of gang involvement is sensitive to gang embeddedness factors such as the two included in this study: gang cohesion and identification with the gang (Pyrooz et al., 2012).

The results reported in this study are limited as they are tied to the specific circumstances in the areas studied and are correlational in nature. Studies undertaken with different research designs and in different areas that test the principles proposed in this study are needed to determine how well these findings generalize to other places and circumstances. We hope that this work will stimulate further exploration in other contexts and with varying implementation aspects including a coupling with comprehensive approaches that are growing in importance.

Public Policy Implications

Youth street gangs remain a serious public policy challenge. As the evidence from Los Angeles County suggests, gang members continue to commit serious crimes, including homicides, at rates that threaten public safety in many neighborhoods. Reducing the impact of youth street gangs has been a difficult challenge for policy makers and criminal justice professionals. Efforts to craft law-enforcement-centered gang interventions that successfully reduce gang activities have enjoyed only modest success to date.

The implications of this study coincide with a growing consensus that comprehensive (multidimensional) gang programs are both needed and difficult to achieve. One big obstacle to successful implementation of comprehensive approaches is summed up by this quote from Decker and Curry (2002: 201): “[O]ur review found that responses generally failed to include one (or more) essential ingredients for the successful response to gangs. In most cases a social service response did not have a suppression or law enforcement component. In other cases a suppression-only intervention was mounted.” In terms of gang injunctions, most are implemented by law enforcement with a focus on gang control (i.e., suppression only). Katz and Webb (2006) examined gang units in four large cities and found that despite a mandate to take a community policing approach, the operations of these units concentrated on suppression and were generally shrouded in secrecy. This study suggests that gang injunctions with a suppression-only focus may not be as effective in the long run and may even backfire by inadvertently strengthening gang social identity that sustains gang crime.

Comprehensive approaches incorporate efforts at many levels, including efforts centered on individual change as well as efforts to interrupt gang-on-gang (group level) violence using resources from multiple sources working together (law enforcement, gang intervention workers, service providers, and others) to broker individual relationships and build trust and cooperation in lieu of cycles of retaliation and violence (see, for example, the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2010: OJJDP Comprehensive Model; Cespedes and Herz, 2012: Los Angeles Gang Reduction and Youth Development Comprehensive Model). Our findings suggest that gang injunctions coupled with accessible steps toward individual change might be a useful component of a comprehensive approach if it requires collaboration at many levels rather than suppression alone.

Although CGIs are an increasingly popular approach, previous scholarly studies have found mixed results. In this study, we took a novel approach to understand more clearly ways implementation procedures may affect the success of gang injunctions. This study suggests that criminal justice policy makers should carefully consider CGI implementation procedures that emphasize an orientation toward intervention goals rather than exclusively suppression goals in the training of officers and attorneys tasked with enforcing the CGI; the necessity of a strong working relationship with service providers that can provide gang intervention services for enjoined youth who seek assistance; and reasonable and transparent methods for removing oneself from the CGI once an individual has taken steps to desist from participation in criminal gang activities.

Perhaps most importantly, our findings strongly suggest CGIs should target individuals rather than the gang as a group. By focusing on individuals, we believe the policy would better ensure that gang members respond by defending themselves rather than their group, perhaps increasing the odds of taking steps to move away from gangbanging. Unlike the recent trend in which local law enforcement seeks an injunction against a gang identifying large numbers of gang members as a way to target the gang inclusively, the results of this study suggest that members should be held individually responsible for the problems they cause and be given incentives to find a solution to their predicament. Using a CGI to leverage steps toward personal development (access to education, employment, and counseling for positive personal growth) may strengthen the individual and weaken the gang as a group.

A large safety zone may preclude a clear focus on individuals and may reinforce the “us versus them” attitude, inadvertently strengthening gang cohesion and social identity, potentially defeating the purpose of the CGI. The results here suggest that smaller safety zones constructed around well-developed street information about the activities of the gang will allow police officials to target individuals in the gang and will press them to move away from gang life. Furthermore, the availability of gang-focused services may facilitate a positive impact on the long-term success of the CGI there. Although we did not explicitly test knowledge of the existing procedures for removing oneself from the CGI, our interviews with criminal justice professionals and widespread media stories suggest that improving knowledge of such procedures, and providing clear evidence of the successful use of such procedures, may have a positive impact on the community’s acceptance of CGIs.

Finally, we do not know how well the findings here can be generalized to other neighborhoods, city and social service contexts, law enforcement contexts, or other gang contexts. What we do know is that the success of gang injunctions (both anecdotally and as documented) has varied widely. Our purpose is to begin to identify factors that can facilitate lasting change in communities suffering from high rates of violence and struggling with the hold that street gangs have over their youth. We hope that this study will encourage creative and perhaps collaborative efforts to explore the dynamics of gang injunctions in search of principles that can guide implementation approaches that look beyond the impact of suppression efforts alone.

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The Practicalities of Targeted Gang Interventions

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There are few crime problems as vexing as those posed by street gangs. Both the scientific and practitioner communities have devoted considerable time and attention to devising best practices for reducing the problems associated with these groups at the community and individual levels, with little and sporadic success. Civil gang injunctions (CGIs) represent one of many such responses that have received some support in the scientific literature for their ability to reduce crime (Grogger, 2002) and its associated problems (Maxson, Hennigan, and Sloane, 2005) in the short term. As Karen M. Hennigan and David Sloane (2013, this issue) highlight, however, implementation processes are not well understood, and perhaps, they are too variable to subsume under any one “programmatically” model. Variation in the implementation of CGIs exists not just from city to city or even neighborhood to neighborhood, but within the same injunction zone across time. Given this variation, Hennigan and Sloane used neighborhood-level differences in the way in which a series of CGIs were implemented to determine whether we could tease out particularly effective components of this strategy. In particular, the CGIs under study differed in three primary respects:

- (1) Whether they targeted individuals versus the gang as a whole
- (2) The size of the injunction area
- (3) The availability of alternative social services (e.g., job training, education, and counseling) for those targeted by their respective CGIs.

Based on their data, Hennigan and Sloane (2013) suggested that CGIs are most likely to provide desired outcomes when they (a) target individuals, not gangs, consistent with the process of individuation; (b) focus on a small target area; and (c) are part of a more comprehensive gang intervention strategy that provides prosocial alternatives to gang life.

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Like all good examinations of the effectiveness of public policies, Hennigan and Sloane (2013) have moved the discussion of CGIs forward, and ultimately raised a series of questions that are worthy of study. Perhaps most important, these authors have focused on the mechanisms through which the CGIs impacted the individuals and communities, which allows for the placement of CGIs in a broader discussion of best practices for targeted gang interventions. My reaction in this policy essay, therefore, focuses explicitly on the practicalities associated with implementing CGIs in the manner suggested by Hennigan and Sloane in the context of community-based gang interventions more broadly. I first discuss the as of yet unknown opportunity costs associated with implementing CGIs. I then move on to provide a critical assessment of the state of targeted gang interventions that attempt to reduce community crime and violence rates through targeted enforcement while simultaneously providing alternative outlets for those at *high risk* of engaging in these behaviors.

Opportunity Costs

A critical feature of any public policy initiative aimed at reducing crime is whether the benefits (e.g., crime reduction and quality of life for residents) outweigh the costs associated with implementation (e.g., police overtime, prosecution time/effort, and community trust). In 2005, Jeffrey Grogger provided a rough cost–benefit analysis in his reaction essay to Maxson and colleagues' (2005) analysis of the impact of CGIs on quality-of-life issues in the Verdugo Flats community in San Bernadino, CA, and he suggested that enforcement costs would have to be exceedingly high for CGIs to be inefficient. This assertion is likely good news for prosecutors and police personnel exploring the idea of implementing a CGI, but decisions about the best gang intervention strategy for a given community are never made in a vacuum. There are numerous options for officials to choose from in targeting their local gang problems, and indeed if CGIs can produce consistent reductions in crime and violence the focus must shift from whether there is a net benefit to that of opportunity costs.¹

The controversy surrounding civil gang injunctions are likely a noted cost for any prosecutor or police chief considering the tactic. Although CGIs have received judicial support in California, the legality of injunctions is likely to be challenged into the future. Organizations such as the American Civil Liberties Union (ACLU) have voiced their concerns over the constitutionality of this tactic, meaning the adoption of a CGI in any jurisdiction brings with it the uncertainty of a costly lawsuit and the sunk costs associated with cases derived from what might be labeled unlawful practices. Therefore, we should also ask whether the potential costs associated with this tactic are too great given the promise of an alternative strategy.

Again, this is where Hennigan and Sloane (2013) have served their readers well in focusing on processes related to efficient outcomes with respect to CGIs. If individuation

1. The added cost of using resources (as for production or speculative investment) that is the difference between the actual value resulting from such use and that of an alternative (as another use of the same resources or an investment of equal risk but greater return [Merriam-Webster, 2013]).

seems like a promising avenue for thinking about gang interventions, and the process of using a civil gang injunction is one way to achieve this goal of creating a wedge between gang members and the social forces at work in gangs, we might then look for alternative ways to produce individuation that do not entail the lengthy and controversial process of enjoining gang areas or gang members. Furthermore, can alternative, less controversial, strategies also include similar targeted enforcement tactics and social services (e.g., job training, education, and counseling) for high-risk residents that would produce comparable community and individual benefits? Popular targeted crime interventions that include community call-ins, such as those based on the Boston Ceasefire model (Braga and Weisburd, 2012) or the Drug Market Intervention (Corsaro, Hunt, Kroovand Hipple, and McGarrell, 2012), coupled with juvenile curfew laws (Kline, 2012), may produce comparable outcomes through similar processes (e.g., individuation, deterrence, and services) as those suggested by Hennigan and Sloane without a similar degree of legal uncertainty as CGIs. This, of course, is an empirical question, but it is one of utmost importance for stakeholders considering the merits of CGIs in their search for efficient and effective strategies in combating gang crime and violence.

Can We Implement Comprehensive Strategies?

A review of the gang intervention and prevention literature is sure to highlight the near ubiquity in calls for more comprehensive strategies for dealing with youth and young adults most at risk for involvement in violence so that root causes associated with these problems can be addressed. Hennigan and Sloane also suggest such a strategy, and for good reason. Youth involved in gangs regularly harbor numerous risk factors for antisocial development that cut across a number of domains, including family, education, peers, and personality. It only seems logical, therefore, to call for a comprehensive strategy to help youth deal with these myriad social and psychological deficits. Evaluations of comprehensive strategies, however, regularly reveal the difficulty in implementing and sustaining such efforts.

There is widespread belief by police administrators, prosecutors, and community social service providers in the merits of targeted and comprehensive strategies; yet evaluations of such programs continue to document problems with program fidelity. Although buy-in is an essential first step in bringing together the necessary constituent groups in these efforts, more scientific focus should be paid to the identification of system-level properties necessary for such programs to be implemented with fidelity. Too often comprehensive initiatives that use a targeted public health approach to gang and violence prevention that requires collaboration across agencies run into two related problems:

- (1) Identifying the population most appropriate for targeted interventions.
- (2) Providing ongoing social services to this high-risk population.

Unfortunately, although criminological research has identified the social and psychological deficits prevalent in youth gang populations, a working model for identifying and

working with this population is lacking but necessary before strides can be made in comprehensive prevention and intervention efforts.

Take the unfortunate history of hospital-based patient infection as an example. In 1847, Ignaz Semmelweis suggested a simple plan to fix the problem of sudden onset fever and death by women who gave birth in a prestigious teaching hospital in Vienna, Italy: have doctors wash their hands in a disinfecting solution upon leaving their teaching facility—where they were actively working on cadavers—and before delivering babies in the nearby delivery rooms. Upon adoption, the once high rate (13–18%) of maternal deaths caused by sudden onset infection after delivery was reduced to relative nonexistence (Best and Neuhauser, 2004).

It took decades, but the ever important buy-in on the part of physicians and scientists around the world—that invisible micro-organisms could cause widespread death and disease—was achieved. Today, you would be hard pressed to find a single practicing physician that would dare question the existence and danger of deadly micro-organisms in clinical settings. Yet, one of the most pressing issues remaining in any health-care setting in modern times is that of hand washing by staff. The health-care industry has devoted considerable time and effort in developing system-level changes to promote adherence to this basic behavior (i.e., washing hands), and yet physicians still fail to comply roughly 40% to 60% of the time (Braunstein, 2012). If the simple task of washing one's hands can save 100,000 lives each year in the United States alone (Braunstein, 2012), why do so many people continue to die each year from these preventable conditions? The fact is that changing routine practice among hospital staff is difficult, and because incessant washing of one's hands is unpleasant.

The lessons learned from the efforts aimed at getting physicians to wash their hands between patients is particularly troubling with respect to the daily operation of comprehensive community-based crime prevention efforts. Each agency tasked to be involved in comprehensive crime prevention strategies is embedded in the ongoing routines of daily practice that may or may not coincide with the mission of the crime prevention program in which it is involved. In fact, many of the social service providers involved in such programs are not explicitly devoted to the prevention of crime or deviant behavior, but instead they focus on more general needs such as mental health, job skills, or education. Although “buy-in” to the principles of evidence-based crime prevention can be achieved in these agencies, everyday tasks and practicalities, including finding the next source of funding that is attached to a new set of “innovative” evidence-based practices, may get in the way of sincere adoption of the program or treatment at hand. Not to mention the fact that the changes in behavior often required of agency personnel may be just as difficult to embed in routine practice as that of washing hands between patients in health-care facilities.

If CGIs are to be part of a larger, more comprehensive strategy, stakeholders involved in the planning of the initiative need to be explicit about a number of issues. First, can social service providers, police, and prosecutors agree as to whom should be given top

priority for their attention and services? Those served by CGIs are not likely to be model clients for social service providers. They take up an inordinate amount of time, may be particularly disruptive in group-based settings, may be the least cooperative and thankful for the opportunities provided, and are relatively unlikely to complete the program relative to more prosocial clients. Although the notion of targeted gang and violence interventions with the highest risk persons sounds good in principle, in practice the idea of turning away good people, who despite living in a bad neighborhood or being down on their luck have continually done the right thing, while providing valuable services to those who have done enough to merit inclusion in a CGI can quickly lead to frustration on the part of frontline workers and an erosion in services to the intended audience.

What may begin as good-faith efforts on the part of police, prosecutors, and community agencies to implement a comprehensive strategy to reduce community levels of violence and gang activity can devolve into a disjointed effort on the part of well-meaning, although poorly coordinated constituent agencies. In the case of CGIs, there is a distinct possibility that gang members targeted as part of the injunction will not receive the intended services with sufficient dosage to make a difference, and thus, longer term crime reduction is unlikely. To guard against this possibility, we need to focus on system-level changes that can better assure implementation fidelity across time. Incentive structures in social service agencies tasked with identifying and working with high-risk youth should reflect the realities of working with this difficult-to-manage population. After all, there are likely many *needy* people in areas affected by CGIs and, therefore, no shortage of potential clientele from which these social service agencies can select. Making sure we have a system in place to identify *and* work with clients at greatest risk for violent behavior is therefore imperative.

Recommendations

Several gang intervention strategies seem to produce at least short-term reductions in crime and violence (e.g., Braga and Weisburd, 2012; Grogger, 2002). Hennigan and Sloane (2013), by focusing on the processes through which CGIs are likely to impact gang crime and violence, have provided clear recommendations for how municipalities can successfully implement these initiatives in the future. The researcher and practitioner communities must now determine the relative merits of CGIs versus other emerging tactics for reducing gang crime and violence. Based on the accumulated literature, government entities considering CGIs as part of more comprehensive strategies should look for solutions that can be easily integrated into routine practices of available community resources. As Hennigan and Sloane found in their sample of Los Angeles communities targeted by CGIs, there is variation from community to community in available social service agencies. More importantly, there are discrepancies in the quality and breadth of services available, meaning there are likely gaps in particular services while there are redundancies in others. In such instances, it is tempting to ask existing agencies to change their routine practices to fill the gaps, but more attention should be given to the practicalities associated with changing routine

behavior in such settings. Interventions that require a host of organizations to change their daily operations to accommodate what they may see as fleeting efforts to control crime are difficult to implement, to say the least. Far more attention needs to be paid to how the ongoing daily operations of police, prosecutors, and social service agencies impact whether and how gang-focused strategies are implemented. Identifying and working with high-risk gang members are two separate tasks that require practical solutions.

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The Importance of Cohesion for Gang Research, Policy, and Practice

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We gang scholars like to think that our groups are special—that gangs are somehow more “groupy” than other delinquent or peer associations and, thus, warrant special attention. The average delinquent group tends to be quite informal, lasting just a short duration, and only haphazardly involved in crime and delinquency (see Warr, 2002). Gangs, we often argue, are somewhat more “organized” (although perhaps not terribly more so) than fleeting delinquent groups, with a stronger sense of identity, a greater attachment to neighborhood turf, and higher levels of involvement in crime and delinquency. This stronger sense of “groupness” amplifies internal social processes and potentially generates unique gang norms, behaviors, and structures. *Ipsa facto* stronger group/peer pressure and social control within the gang intensifies criminal and deviant behavior, making gangs a unique social form worthy of empirical investigation.¹

Scholars are not the only ones to recognize and attempt to capitalize on the heightened groupness of gangs. Police devise specialized gang units to investigate group structures and members more intensely than they police nongang cases. Prosecutors frequently rely on the organizational structure of gangs to build cases and secure enhanced penalties for gang members. Politicians and legislatures craft antigang laws to deal with aspects of gang life ranging from hanging out on street corners to the types of clothes deemed to signify membership. And, gang outreach organizations for more than five decades have used street workers to mediate disputes between warring gangs and to provide services to group members (see Tita and Papachristos, 2010). In short, although scholars, policy

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1. This has been a central argument since the early Chicago School. According to Thrasher (1927), gangs possessed many of the same social processes common of all social groups and yet had unique origins and relationships with the urban ecology that made them a distinguishable social form. Thrasher (1927: 3) wrote: “The gang, in short, is *life*, often rough and untamed, yet rich in elemental social processes significant to the student of society and human nature” (emphasis in original).

makers, police, and community organizations seldom agree on their approaches to gangs, there is one thing on which they do agree: When it comes to gangs, it is the group that matters.

Hennigan and Sloane (2013, this issue) describe how an increasingly popular suppression strategy, civil gang injunctions (CGIs), affect individual gang participation and aggregate gang crime in Los Angeles. Through civil litigation, CGIs set up a geographic “safety zone” in which members of the targeted gang confront a long list of legal stipulations that address where they are allowed to hang out and with whom, what they are allowed to wear, how long they can stay out on the streets after dark, and more. CGIs implicitly and explicitly capitalize on the groupness of gangs. The basic assumption is that CGIs make it difficult for the gang to function as a group and engage in collective activity. The hope is that such barriers will dissuade members from participating in group life and, in doing so, will diminish gang crime.

The preceding study unpacks important mediating mechanisms behind CGIs: the cohesion of a gang and an individual’s attachment to the group. Cohesion has been a theoretical blackbox in gang research for decades (Klein and Maxson, 2006; Short and Strodtbeck, 1965). Hennigan and Sloane (2013) have produced a clever study that not only attempts to measure group cohesion but also distinguishes among attachments to the group, time spent on the street together, and the properties of the group itself. The study finds statistically significant differences in reported levels of cohesion and member-attachment between gang youth in the CGI and control areas, supporting the idea that “criminal and violent activities among gang-involved youth are strongly related to cohesion.” This relationship, however, is mediated by an individual member’s attachment to the group. The authors find that although CGIs diminish the amount of “street time” gang members spend with each other, CGIs do little to affect the overall cohesion of the group. The implication is that CGIs are perhaps more effective when they focus on individual attachments as opposed to the cohesion/structure of the group itself. As Hennigan and Sloane conclude: “One way to mute the identity dynamics of gang involvement is to concentrate a youth’s attention on *individual* concerns rather than on the goals of the group” (emphasis in original).

This study represents an important step forward in gang research and policy. Quite simply, it is perhaps the “best yet” attempt to measure various dimensions of gang cohesion. Methodologically, Hennigan and Sloane (2013) employ interview data to parse out important differences in group cohesion, collective activity, and individual attachment—something not possible with administrative or survey data. Furthermore, the authors come into dialogue with the long-held belief that conflict with authority may *increase* the cohesion of the gang (Decker, 1996; Klein, 1971; Thrasher, 1927). Namely, policing efforts may unintentionally increase gang cohesion and identity by creating a situation where it becomes “cops versus gang.” Hennigan and Sloan find that such a dynamic might be true and, therefore, encourage future iterations of CGIs to focus more squarely on individual attachment rather than on group cohesion.

Without diminishing the study's important contribution, its findings are far from causal—a fact that Hennigan and Sloane (2013) readily admit. The interview data are cross sectional in nature, occurring *after* the CGIs. In addition, when examining mediation effects (Table 4 in Hennigan and Sloane), there seem to be greater differences between the two CGI areas than between the CGI areas and the control area: Only 3 out of 14 cells in Table 4 in Hennigan and Sloane show significant differences between CGI and the control area compared with 3 out of 7 cells between the two CGI areas. Thus, it might be that the observed differences between treatment and control areas represent heterogeneity between gangs or neighborhood contexts as opposed to effects attributable to CGIs.

The lack of causal explanation should not detract too much from Hennigan and Sloane's (2013) findings, however. Rather, this study affords an opportunity to think about advancing the discussion and analysis of group processes in the gang and the implications of such findings on practice. In the remainder of this essay, I offer a suggestion for furthering the study of gang cohesion by using social network analysis as a way to measure such processes systematically and by using such data to motivate a variety of approaches to gangs.

Cohesion and Heterogeneity

In the gang literature, the idea of “cohesion” refers generally to a sense of togetherness, solidarity, morale, or *esprit de corps*. A sense of cohesion within a group can come from many sources, including some of the foundational processes found in differential association and social learning theories, such as the frequency, duration, and intensity of interactions among members. Namely, as individuals within groups spend more time engaged or invested in (collective) activities, the group may become more cohesive. Moreover, Thrasher (1927) and others (Decker, 1996; Hagedorn, 1988; Suttles, 1968) pointed out that conflict with authorities and other groups also may increase cohesion as the group bands together in response to external pressure. The basic (and essentially untested) hypothesis in the gang literature is that cohesive gangs have a greater sense of groupness and identity, are more likely to stick together, and are better equipped to monitor and control member behavior.

But cohesion in the gang, or any other type of group for that matter, can vary from organization to organization. Even a cursory glance at the ethnographic literature attests to such variation among gangs. For instance, the Fremont Hustlers described by Fleisher (1998) are a small informal group based on a series of overlapping social networks of friendship, neighborhood cliques, and romantic relationships. Members come and go, and group cohesion—to the extent there is any—is based more on the various sets of interpersonal relationships as opposed to any appeal to collective identity. Smaller cliques within the Hustlers may be more or less cohesive, but the gang as a whole does not seem to be highly unified. In contrast, the Black Kings described by Venkatesh (1997; Venkatesh and Levitt, 2000) consist of sets of subgroups where behavior is more closely monitored (and sanctioned) both at the small-group level as well as at the overarching “nation” structure.

In the Black Kings, direct appeals often are made to members' sense of belonging to the small-group and neighborhood, as well as to obligations to the nation.

Cohesion also may vary by the *type* of group/gang. Consistent with some of the research just cited, one might hypothesize that "traditional" gangs with longer histories and connections to turf may very well appeal to multiple dimensions of identity, whereas "specialty" gangs engaged in circumscribed activities may have fewer dimensions on which to leverage group processes (Klein, 1995). For instance, a gang whose main objective is the sale of illegal drugs might be able to leverage a member's business-like aspirations to rally behavior or morale, but perhaps not his sense of loyalty to the group or obligation to the neighborhood. In contrast, gangs with deep ties to a particular neighborhood, set of familial relationships, or ethnic identity can leverage a broader basis of solidarity and cohesion (Vigil, 2002).

Finally, the level of cohesion within of a gang may vary over time. Members come and go. Many groups fade away with a lackluster swan song as members age-out of the group, move away, get jobs, and so on. Regardless, a gang's cohesion will vary as the group deals with external and internal conflicts, membership turnover, and other normal aspects involved in the daily existence of social groups. What is more, as Hennigan and Sloane (2013) illustrate, the entire point of many law enforcement tactics, including CGIs, is to alter such internal structures and processes—to reduce, eliminate, or otherwise disrupt the groupness of the gang.

As mentioned, Hennigan and Sloane (2013) advance prior research by (a) providing new ways of capturing cohesion and member attachment and (b) offering correlational evidence of variation in cohesion and member attachment. Moving forward, I argue that the next significant step for both research and practice is a systematic and comprehensive understanding of heterogeneity in gang structures and cohesion. If, as I have just argued, gangs vary in their levels of cohesion, then it behooves us to consider how our theories of gang research and our policies might be tempered by such variation. As I have argued elsewhere (Papachristos, 2005, 2006, 2011), I believe social network analysis offers an extremely promising way to understand the ins and outs of gang structures and processes.

A Social Network Approach to Gang Cohesion

In the social network literature, cohesion often is measured as the density of a network—the extent to which individuals in a group are more or less connected to each other.² The more connected the network, the greater its density. A dense network is one where a lot of activity or a large number of strong ties exist among its members. The general idea, as aptly summarized by Collins (1988: 416–417), is that "the more tightly individuals are tied into

2. Formally, density is measured as the proportion of all ties present in a network that could possibly be present where 0 means no ties are present while 1 means all ties are present; i.e., everyone is connected to everyone else (Wasserman and Faust, 1994).

a network, the more affected they are by group norms. . . . There are two factors operating here, which we can see from network analysis: how many ties an individual has to the group and how closed the entire group is to outsiders.”

Applying these concepts of density and cohesion to gangs is best demonstrated by analyzing the network structures of different groups. To illustrate, Figure 1 presents the networks of two Latino gangs in one Chicago community. Both gangs have existed since the 1960s, have strong ties to turf, have some form of leadership and organizational structure, and are engaged in a variety of criminal activities. Both of these gangs actively engage in street-level drug dealing, and both have been involved in several fatal and nonfatal shootings. In Figure 1, each node (circles) represents unique individuals in the gang, with gang B having slightly more members ($N = 58$) than gang A ($N = 51$). Each line represents a social connection between the individuals as determined from existing police data.³

The difference in density (and possibly cohesion) of the two gangs in Figure 1 is visually noticeable: There are simply more connections among members in gang B, creating a network that looks more “clumpy”—i.e., more people are interacting with each other. In contrast, gang A is sparser, which gives the impression that the network is more diffuse than gang B, a fact that is supported by the density measures. Furthermore, on average, members in gang A have 3.3 ties to other members (average degree), whereas members in gang B have 5.5 ties to other members.⁴ Thus, by and large, members are more connected in gang B and have a greater number of ties to each other than members in gang A.

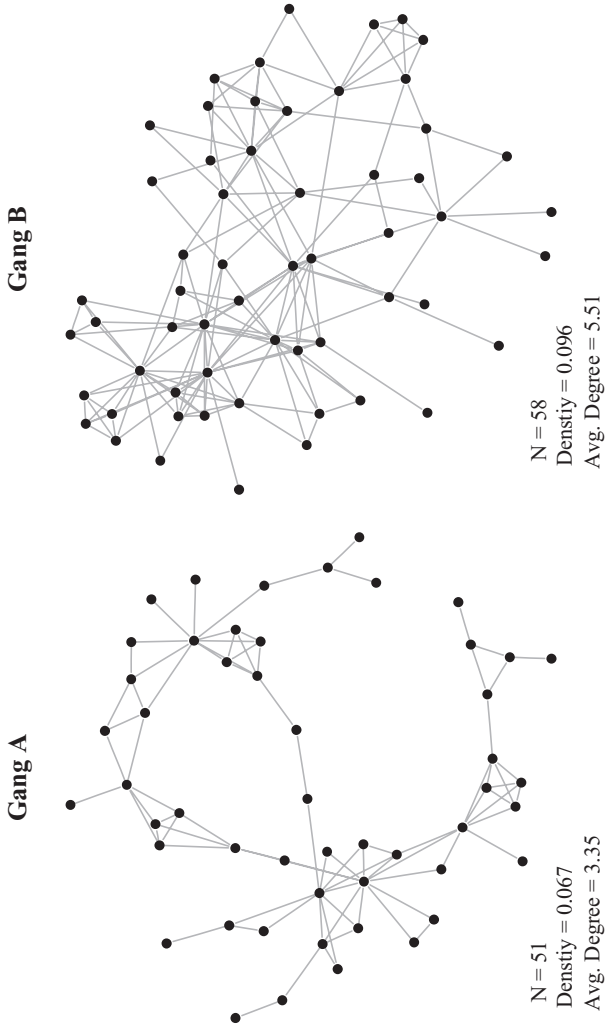
The parallel to the idea of cohesion described by Hennigan and Sloane (2013) is straightforward. Gang B seems to be more cohesive in the sense that its members are more connected. Accordingly, it is easier for members to monitor each other’s behaviors, exert social control, or else appeal to personal attachments. In contrast, members of gang A share fewer ties, some with only a single tie. Whereas Hennigan and Sloane argue that it might be easier to appeal to individual attachment as opposed to focusing on the group, social networks like those in Figure 1 suggest that this finding may be tempered by (a) the extent to which any individual is attached to the gang and (b) the overall cohesion (density) of the gang itself. That is, individual attachment may vary by the cohesion of the group with varying levels of formal and informal processes and sanctions associated with any gang’s level of cohesion. To understand how a prevention or enforcement action may or may not affect group or individual behavior, we should situate it within the parameters of the network structure of the group.

3. These data are intended only to illustrate the potential application and in no way capture the entire set of social network ties among these gang members. In the current example, ties are based on incidents of co-arrest and observations taken from field contact cards. Excluded are things such as familial, residential, or other social (and noncriminal) networks. For more detailed examples, see Papachristos, Braga, and Hureau (2012) or Papachristos (2011).

4. In this example, each gang member’s degree represents his total number of ties in the network.

FIGURE 1

The Network Structure of Two Chicago Street Gangs



Moving Forward

Hennigan and Sloane (2013) provide strong correlational evidence that cohesion and personal attachment to the gang matter when considering gang prevention and enforcement strategies. My objective was to further this line of thinking by illustrating that (a) the cohesion of any gang will vary and (b) an individual's attachment to the group may reflect the overall structure and cohesion of the gang. Future research would do well to consider *systematically* how gang structures vary and how such variation might influence the outcome of interest or the program under consideration. As a point of speculation, for instance, perhaps the differences observed by Hennigan and Sloane reflect not the differences between CGI and control areas but, in fact, the heterogeneity of the gangs in the different locations; it might be easier to appeal to individual attachment in less cohesive gangs (e.g., gang A) than in more cohesive gangs (e.g., gang B).

What does this mean for research and practice? First and foremost, the focus on cohesion more generally and the use of social network analysis more specifically implies that approaches to gang research, policy, and practice would be better served by carefully identifying not only the groups subject to investigation but also the precise structure of those groups. The starting principle should be variation and fluidity, not categorical distinctions or static definitions. Gang strategies would also do well to consider that certain tactics, programs, and policies may not apply to every gang in every community. Importantly, this means taking the analytic time during problem analyses and investigations to analyze and map out the structures of particular gangs. I have suggested in this essay and elsewhere that social network analysis provides one such useful tool (Papachristos, 2005). Hennigan and Sloane (2013) have demonstrated that well-conducted interviews also can illuminate dimensions of cohesion and attachment. Undoubtedly, other methods of research and investigation might provide equally fruitful and productive paths of inquiry. Regardless of specific analytical tools, the point is the same: There is an important need to understand better the groupness of gangs and how individuals are attached to these groups. And, knowing the contours of a gang's structure may make the difference between a successful or an unsuccessful intervention.

In addition to CGIs, other types of gang strategies also might benefit from a better understanding of gang structures. For example, enforcement strategies might become more focused and nimble, responding to realistic depictions of networks as opposed to anecdotal or antiquated conceptions of gang organizational schemes. Recently, for example, the Chicago Police Department began using social network analysis to understand better how once monolithic gangs have become factionalized over recent years and how such splintering contributes to ongoing gang disputes (Papachristos, 2012). Likewise, gang outreach organizations might focus their intervention efforts toward groups involved in particular conflicts or toward members of greatest susceptible or vulnerability within networks. For instance,

outreach such as the CureViolence model might be able to guide outreach workers and violence interrupters more accurately toward real-time disputes in a way that capitalizes on both street knowledge and analytics. Especially promising approaches mentioned by Hennigan and Sloane (2013) are “comprehensive” strategies that “incorporate efforts at many levels, including efforts centered on individual change as well as efforts to interrupt gang-on-gang (group level) violence using resources from multiple sources working together (law enforcement, gang intervention workers, service providers, and others) to broker individual relationships and build trust and cooperation in lieu of cycles of retaliation and violence.” Complex strategies such as these might especially benefit from more focused attention on gang structures and cohesion by more carefully leveraging different types of strategies and resources according to the group or groups selected for treatment.

One set of strategies gaining increased empirical support that may directly benefit from an improved understanding of cohesion are focused deterrence approaches. *Focused deterrence* refers to a family of strategies based on core deterrence principles, but which employs innovative methods to deploy traditional and nontraditional enforcement and nonenforcement techniques.⁵ One focused deterrence strategy gaining popularity and evaluation support entails “offender notification meetings,” which direct enforcement efforts *and* service provision efforts on particular gangs involved in identified and circumscribed activities, such as drug dealing, shooting, and so on. Specific groups are targeted because of their behavior (not their structure) to be part of the intervention, and together, police and community members communicate directly with those offenders and group members involved in the ongoing activities (e.g., Braga, Hureau, and Papachristos, in press; Carsaro, Hunt, Hipple, and McGarrell, 2012; Engel, Tillyer, and Corsaro, in press). Consistent with the argument in this essay, many focused deterrence programs have used social network analysis to diagnose violence situations since early iterations of Boston’s Operation Ceasefire (Kennedy, Braga, and Piehl, 1997). Since then, such techniques have been used in a growing number of cities including Los Angeles, Cincinnati, Boston, New Haven, and Chicago. Indeed, there seems to be a growing interest in applying techniques such as these in violence prevention and evaluation efforts.

In conclusion, cohesion has been a central theme in the gang literature since its earliest days. Regardless of how we define it, this aspect of groupness is one thing that makes gangs interesting for us scholars and problematic for policy makers, law enforcement, and communities. But we know enough from prior research—and from studies such as those by Hennigan and Sloane (2013)—that we can no longer ignore the importance of groups and individual attachment in our theories of gangs and in our attempts to craft strategies to address gangs in our communities. Moving forward, I urge scholars and policy makers to think carefully and measure systematically. We should use new methodologies and sources of

5. For a recent review of the experimental literature in this area, see Braga and Weisburd (2012).

data as they become available, while not forgetting what we can learn from our time-tested methods of interviewing and observation. Fancy computer algorithms should complement existing, proven techniques and provide new insights into the social world, not replace other modes or methods of data collection.

No single solution exists for understanding gang structures, cohesion, and individual attachment. Gangs vary. Treating every gang investigation like it is a RICO case is dangerous, as is dismissing the importance of gangs simply because they are smaller informal units. My hope is that Hennigan and Sloane's (2013) study and my essay highlight the importance of cohesion, in all of its forms, and encourage researchers, policy makers, and practitioners to take the time to measure it properly.

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EDITORIAL INTRODUCTION

L O N E R A T T A C K S A N D D O M E S T I C E X T R E M I S M

Lone-Offender Terrorists

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At the most elementary level, science begins with counting things: atoms, earthquakes, distance from the earth to the sun, or even worldwide terrorist attacks. It seems clear that we cannot do a very good job of combating terrorism if we cannot first count how much of it there is. Imagine trying to construct policies to reduce crime without knowing how much crime there is or to reduce cancer without knowing how much cancer there is. Although effective policy against terrorism depends especially on hard data and objective analysis, the study of terrorism has lagged behind many other fields in the social and behavioral sciences, leading psychologist Andrew Silke (2001:11) to observe that terrorism research “exists on a diet of fast food research: quick, cheap, ready-to-hand and nutritionally dubious.” But despite Silke’s gloomy appraisal, criminologists have been making important contributions to the research literature on terrorism for years and progress has been especially rapid in the years since the coordinated attacks of September 11, 2001.

It is not hyperbole to argue that the day after 9/11 no one on the planet could give precise estimates of how much terrorism existed and whether rates were increasing or decreasing. Indeed compared with collecting data on other types of crime, collecting data on terrorism has been especially challenging. No universal consensus on official statistics exists, victims often are chosen at random and are rarely able to identify their attackers, and for obvious reasons offenders seldom provide credible information. Still, in the past two decades, we have made remarkable progress in identifying and analyzing terrorist attacks. This progress has happened in at least three stages. The first stage was the development of international databases on terrorism—assaults where a group or an individual from one country attacks targets in another country. Noteworthy achievements here were two collections of data on terrorism: The International Terrorism: Attributes of Terrorist Events (ITERATE) database, which began coverage in 1968 (Mickolus, 2002), and the RAND Corporation’s “Chronology of International Terrorism” also dating back to 1968 (Jenkins, 1975). In addition, the U.S. State Department began publishing an annual report on

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international terrorism in 1982 (reporting 1981 incidents), and in 1983, it began calling the report “Patterns of Global Terrorism.”

A second major development was the collection of domestic as well as international data on terrorist attacks. Although researchers and policy makers long suspected that domestic terrorist attacks were more common than international attacks, until recently, available databases on terrorism were limited to international cases. An early pioneer in this endeavor was the Pinkerton Global Intelligence Service (PGIS) that began collecting domestic as well as international terrorist attacks in 1970. The Global Terrorism Database (GTD) resulted from the digitization and verification of the original PGIS data, which was completed in December 2005 (LaFree and Dugan, 2007). In April 2001, the RAND Corporation, with support from the National Memorial Institute for the Prevention of Terrorism (MIPT), began collecting (going back to 1998) terrorism data on domestic attacks. And finally, in 2004, the U.S. National Counterterrorism Center began collecting a database of both domestic and international terrorist attacks called the Worldwide Incidents Tracking System data (WITS; but data collection was suspended in 2011).

A third and final development on the road to the empirical study of terrorist attacks is well represented by Gruenewald, Chermak, and Freilich (2013, this issue): the development of specialized data sets on specific subsets of terrorism cases. Other recent examples of specialized data collections on terrorist events include Gill, Horgan, and Deckert’s (in press) analysis of attacks by al-Qaeda, extreme right-wing, single-issue, and lone actor attacks; McCauley, Moskalenko, and Van Son’s (2013) comparison of lone actor assassins and school attackers; Dahl’s (2011) study of failed and foiled terrorist attacks; and Asal and Wilkenfeld’s (2013) analysis of ethnic minority groups that move in and out of using terrorist strategies.

In the current case, Gruenewald et al. (2013) introduce the Extremist Crime Database (ECDB), which includes ideologically motivated homicides committed by far-right extremists in the United States between 1990 and 2010. These data allow the researchers to examine whether homicide offending patterns of far-right loner extremists are different from a comparison set of homicides committed by other types of far-right extremists. They examine 23 claims from the literature on extremist loner violence and, based on their findings, offer suggestions to policymakers for addressing loner violence through nurturing strategic partnerships with law enforcement and the military, innovative uses of surveillance technologies, and the development of threat assessment tools.

Gill and Corner (2013, this issue) point out in their policy essay that by concentrating on specific types of terrorists, Gruenewald et al. (2013) provide an important next step in the study of terrorism—what I have identified here as a third step in developing valid counts of terrorist attacks. Gill and Corner also note the importance of research that examines extremists from the far right, given the overwhelming preponderance of studies focusing on violent Islamist organizations in recent years. One of the most important and controversial findings of Gruenewald et al. is that two fifths of lone offenders had previously been

diagnosed with mental illness. Gruenewald et al. also find that compared with far-right extremists in general, lone offenders are significantly more likely to have military experience and to live alone.

In his policy essay, Borum (2013, this issue) concentrates on the challenges of defining loner attacks, the role that radicalization plays in the process, and more generally, how mental illness is connected to the actions of extremist loners. In terms of defining attacks, he proposes a multidimensional approach that distinguishes the extent to which the offender/attacker initiated, planned, prepared for, and executed the attack without assistance; the extent of the attacker's independence; and the extent to which the attack is significantly driven by a politically, socially, or ideologically based grievance, and not solely by revenge or some other personal motive. Borum points out that not all lone actors are driven by extremist ideologies and even fewer of them are radicalized in any traditional sense. Borum, like Gill and Corner (2013), notes that an important contribution of this article is that Gruenewald et al. (2013) provide a key counterweight to the common conclusion that terrorists are no more likely than others to have psychological problems.

And so by putting this article and the policy essays in a broader context, we see an interesting example of scientific progress. We began only a few decades ago unable to count terrorist attacks at all. We then first developed worldwide data on international cases. About a decade ago, researchers then began to add domestic cases to these worldwide terrorism databases. And very recently, we have begun to see the flowering of more specialized data sources on terrorist attacks—illustrated in this case by research that makes distinctions between different types of lone actor offenders.

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EXECUTIVE SUMMARY

L O N E R A T T A C K S A N D D O M E S T I C E X T R E M I S M

Overview of: “Distinguishing ‘Loner’ Attacks from Other Domestic Extremist Violence: A Comparison of Far-Right Homicide Incident and Offender Characteristics”

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Research Summary

Recent reports have suggested that “loner” extremists, or self-radicalized extremists with no ties to organized groups who commit an ideologically motivated attack on their own, represent a growing threat to public safety in the United States. Disagreements among scholars and policy makers about contributing factors of loner attacks have led to competing predictions based largely on anecdotal evidence. Our study contributes to the understanding of loner violence by comparatively examining lethal attacks committed by far-right extremist loners and other far-rightists in the United States between 1990 and 2010. More than 20 of the leading claims from the literature on extremist loner violence are examined. The systematic comparison of far-right loners and other far-rightists presented in this article highlights ways in which loners are different from other far-rightists. Bivariate comparisons found that far-right loners are more likely to have a military background, less likely to be married, and more likely to plan on dying at commission of the crime, live alone, use a firearm, kill multiple victims, and select government targets. Loners also were similar to other far-right extremists on a large number of measures. Using a multivariate analysis, we tested what factors are particularly important for distinguishing between loners and other far-right offenders net the effects of other variables. Variables that significantly distinguished loners from other far-right homicide offenders include military background, age, mental illness, and relationship status.

Policy Implications

The findings highlight several important differences between loners and other types of violent extremists that could be used by policy makers and analysts to craft policies and strategies designed to prevent and preempt loner extremism. It seems that increased emphasis on intelligence, the use of undercover operations and informants, and task force strategies are in many ways working to prevent attacks committed by extremists. Although steps must always be taken to ensure that civil rights are not violated, our results provide direction for modifying and redirecting some ongoing counterterrorism efforts to prevent future loner attacks. We conclude with a discussion on how building or enhancing extant partnerships, information sharing, technological surveillance, and sharpening threat assessment capabilities could enhance current strategies to thwart loner violence.

Keywords

homicide, terrorism, loners, lone wolf, lone actor

Distinguishing “Loner” Attacks from Other Domestic Extremist Violence

A Comparison of Far-Right Homicide Incident and Offender Characteristics

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This study examines whether the homicides committed by far-right loner extremists (herein “loners”) are different from a comparison set of homicides committed by other types of far-right extremists in the United States.¹ The database that is used includes all ideologically motivated homicides committed by far-right extremists between 1990 and 2010. There has been substantial interest in understanding the lethal potential of loners along with excellent foundational empirical and theoretical work, but there are gaps in this research. Most of the literature argued that loners are “different” from extremists who

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1. We operationalize loners as self-radicalized extremists, meaning that (a) they have no ties to extremist organizations and (b) they commit the ideologically motivated homicide incident on their own. Loners have been given a number of different labels in the terrorism literature, including “freelancers” (Hewitt, 2003) and “lone avengers” (Stern, 2003). Loners are not rogue actors who have strayed from the group or actors who operate in small, leaderless cells. Rather, loners operate completely independently and on their own volition.

might offend in groups or with other offenders. As shown subsequently, the literature review documents a large number of specific claims about alleged differences between loners and other types of extremist offenders. Unfortunately, studies empirically documenting these differences are lacking.

Importantly, what can be deduced from the existing literature often is bewildering for analysts and others charged with developing effective counterterrorism policies to prevent future loner attacks. This study tests more than 20 hypotheses from the prior literature about alleged differences between loners and other types of violent extremist offenders. Our goal is to highlight those differences that could be used by those charged with developing effective prevention policies. The implications of the results for policy and terrorism research are discussed.

This study is an important contribution for several reasons. First, the differences between loners and other violent extremist offenders are quantitatively tested. Few empirical studies have been published on this topic (Spaaij, 2010). Several case studies have been published on loners, providing rich descriptions of the social and psychological characteristics of these types of offenders, but scholars have rarely compared loners with other types of extremist offenders (Moskalenko and McCauley, 2011; Spaaij, 2010; Stern, 2003). Furthermore, we were able to identify only three studies that have quantitatively examined the characteristics of loners. Spaaij (2010) used the RAND-MIPT Terrorism Knowledge Base to build a database that includes 74 lone offenders across 15 countries. Although the results identifying the motivational patterns, social and psychological indicators, and modi operandi influenced our development of the hypotheses discussed subsequently, the results are descriptive in the sense that there was no comparison group. Consequently, it is unknown whether the characteristics of loners differ from other types of extremist offenders. More recently, Gill, Horgan, and Deckert (in press) examined the network characteristics and antecedent behaviors of 119 lone actor terrorists. This study is important because it comparatively analyzes loners of different ideologies, and it compares loners, isolated dyads, and individuals operating under some loose form of command and control structure. In another study, Hewitt (2003) examined data from Federal Bureau of Investigation (FBI) annual reports, the Trick Chronology, various academic publications, journalist reports, watch-group publications, and media sources to examine individual terrorists and group-motivated terrorism incidents. Referring to loners as “freelancers,” he found that freelance attacks had increased. Comparing “freelancers” with members of terrorist organizations, Hewitt (2003) found that a greater number of loners had psychological problems. He did not, however, conduct any comparisons between loners and other ideologically motivated offenders.

The current study extends these prior studies by identifying the “population” of far-right offenders who committed lethal acts of violence for a specific time frame. These perpetrators are then categorized as either “loners” or other far-rightists who had specific

connections to extremists and extremist groups to make a series of comparisons. This study is the first to do this.

Second, although some violent loners during the last 20 years have supported far-left or Al Qaeda–inspired ideologies, examining lethal far-right loners is particularly important.² In the United States, most violent loner attacks have been committed by far-rightists, and many have argued that such attacks are increasing (Bates, 2012; Damphousse and Smith, 2004; Hewitt, 2003; Michael, 2012). The United States Extremist Crime Database (ECDB) has identified close to 140 ideologically motivated homicides committed by far-rightists between 1990 and 2010. In this same period, the ECDB has documented only 30 total homicide incidents committed by supporters of Al Qaeda or other violent Salafist movements (many committed by the same individual) (Freilich, Chermak, Gruenewald, and Parkin, 2012). In addition, far-right leaders have aggressively promoted the use of such tactics during the past 20 years. Racist leader Louis Beam publicized the concept of “leaderless resistance” widely in the early 1980s. He argued that organizational hierarchies are cumbersome and open to law enforcement infiltration, and that criminal activities need to be isolated from larger organizations to limit the criminal and civil liability of the group (Beam, 1992). He pushed this concept in his writings, interviews, and public speaking engagements (Damphousse and Smith, 2004; Michael, 2012). The idea that loners or small cells can be effective also was popularized by White supremacists Alex Curtis and Tom Metzger as a tactical strategy that would make it more difficult for law enforcement agencies to infiltrate groups and conduct investigations (Bakker and de Graaf, 2011; Kaplan, 1997; Michael, 2012). Findings from one analysis of federal terrorism cases indicated that the number of indictees per case decreased after efforts to publicize the use of leaderless resistance tactics (Damphousse and Smith, 2004). In short, these results and offending patterns identified by the ECDB indicate that advocating for leaderless acts may have been successful.

Third, the public and media are currently interested in extremist loners because of recent cases of self-radicalized individuals with ideological agendas who have committed spectacular acts of violence (Bakker and de Graaf, 2010). Recent loner attacks include the Fort Hood assassinations by Nidal Hassan in 2009 and the antigovernment extremist Joseph Stack’s suicide mission that involved him flying his plane into an office building that housed an Internal Revenue Service office. Other earlier high-profile loner attacks include the abortion clinic and Olympic park bombings of Eric Rudolph and the multiple mail bombing attacks by Ted Kaczynski that lasted more than 20 years. The intense media coverage of these recent events has made it seem as though such attacks have increased, and

2. This research focuses on violent homicides completed by loners and other far-right extremists. There would be value in also comparing nonlethal violence by loner extremists of different ideologies with other group-affiliated violent extremists. This topic is important to explore in future research (see Gill et al., in press).

thus, the public and policy makers have focused more attention on loner attacks. In fact, President Obama stated that the United States is far more likely to be attacked by loners than by coordinated terrorist attacks (see MacInnis, 2011).

Fourth, the study of loners is important because of the challenges in preventing such attacks (see Kaati and Svenson, 2011; Michael, 2012; Spaaij, 2010). In fact, Bakker and de Graaf (2011: 1) argued that such attacks consist of the “most puzzling and unpredictable forms of terrorism.” Investigators and intelligence analysts are concerned because loners are difficult to detect, as they are not connected to other extremist individuals. In a recent column in *Foreign Policy*, Berger (2012: para. 8) also commented that “[t]he primary threat presented by a lone wolf is the difficulty of detection, and that threat is significant. If someone truly acts without any support or significant contact with other conspirators, it is very hard to identify him and prevent him from carrying out an attack.” Informants are critical to terrorism investigations, but such strategies are not relevant when attempting to prevent loner attacks (Kaati and Svenson, 2011). Interestingly, these concerns assume that loner offenders are different from other extremist offenders, but as noted previously, little empirical research has established whether such differences exist. This research has sought to highlight what differences are most salient and then offer strategies that can be used by law enforcement and policy makers to respond effectively to loners.

This article unfolds in four sections. The first section reviews the literature and identifies 23 hypotheses on ways that loners may differ from other types of violent extremists. The data and research design used to investigate these claims, while highlighting how our cases were identified, coded, and analyzed, are discussed in the second section. The third section examines the study’s findings, stressing significant differences between loners and other extremist offenders through bivariate and multivariate analyses. The fourth section discusses the key findings and policy implications, and it highlights limitations and suggestions for additional research.

Literature Review

Previous research generally has assumed that violent loner extremists are significantly different from other violent extremists who are operationally connected to other extremists or to specific groups. To organize the literature, we categorize our review and hypotheses in five general categories. We expect loners to differ from other violent extremists in how they engage with extremist movements, how they socially interact with others, how they experience criminogenic conditions, and how they attack their victims. We also explore whether differences exist in personal characteristics.

Engagement with Far-Right Extremism

Hate groups often attempt to connect with other extremists via social media and other Internet sources for various reasons, including the recruitment of new members. Loners also are likely to be engaged but in a more self-serving manner that seeks to promote

and justify their ideologically based motivations and behaviors. Although loners are not connected to organized hate groups and may be isolated from mainstream society, they may still attempt to promote the extremist social movement they support. Gill et al.'s (in press) analysis of 119 loners finds that nearly 59% produced letters, public statements, or written manifestos that outlined their beliefs publicly. Ted Kaczynski, James Von Brunn, Scott Roeder, and Anders Behring Breivik are a few examples of loners who made efforts to communicate via manifestos, public statements, and websites (Artiga, 2010; Kaati and Svenson, 2011; Michael, 2012). We, therefore, expect that loners are more likely than other violent extremists to seek acceptance of their behavior through a public sharing of their ideas. Specifically, we predict that loners are significantly more likely to have published statements, letters, and manifestos that highlight their motivations and beliefs. Some also may participate in radio programs and websites promoting far-right extremist ideology. Others may distribute informational materials in the form of pamphlets or fliers, and still others may promote or advertise extremist beliefs through the exhibition of movement-related attire and other symbology (e.g., White power tattoos). In this way, although hate groups certainly use resources to publicize their activities, connect with other organizations, and recruit, it is possible that loners may be more willing to publicize radical positions on social issues in ways that organized hate movements are not by specifically referring to the need for specific criminal actions.

In addition to sharing their extremist beliefs, loners also may engage with extremism through consumption of extremist propaganda. Because loners do not fit well in society, and by definition they are not part of extremist groups, these individuals may be more likely to “self-radicalize” through the consumption of ideas from literature (Bates, 2012; Kaati and Svenson, 2011). Gill et al. (in press) found that more than 68% had at least read and or consulted propaganda from a wider movement, 27% read or consumed literature about other lone actors, and 15% read materials produced by other lone actors. Likewise, we expect that criminal investigations will find that loners are more likely than other violent extremists to have possessed extremist-related literature.

Loners also may seek to promote their extremist agendas through engagement with the criminal justice system. Interaction with the criminal justice system and a refusal to compromise with court actors can serve as a public forum for a symbolic battle with government officials viewed as corrupt. To make the most of their opportunity to publicize their cause and to “go to war” with the government, we expect that loners compared with other violent extremists will pass up opportunities to settle with the courts through plea bargaining and will force the government to provide opportunities for adversarial trials.

Nature of Social Relationships

Although by definition loners are not connected to extremist groups, we also expect them to have problems with other types of social relationships. Kaczynski is the most glaring

example as he lived “off the grid” in a remote cabin in Montana. Nijboer (2012) concluded that loners are awkward in different types of social situations and simply do not play well with others. Research, for example, has concluded that loners have few friends. Spaaij (2010: 863) found that the loners in all five of his case studies had few friends, and Moskalenko and McCauley (2011) similarly found in their case studies that the loners were withdrawn. Gill et al.’s (in press) recent research also highlighted how loners are social outsiders: 37% lived alone at the time of their attack, 40.2% were unemployed, 10.1% had dropped out of school, and nearly 53% were socially isolated. Similarly, Springer (2009) concluded that loners had trouble in their personal and work relationships and had problematic home lives (see also Kaati and Svenson, 2011).

We will, therefore, examine several hypotheses about whether the social lives of loners differ from other violent extremists. First, we expect that loners are more likely to live alone or with others who are neither intimate partners nor family members. Second, we predict that loners will have problematic home lives and will be significantly more likely to have never been married or to be divorced. Third, we expect loners to be less likely to have children. Fourth, we expect loners to have difficulty keeping a job and that they are significantly more likely to be unemployed compared with other offenders. Fifth, we expect them to have had more unstable family lives as children.

Criminogenic Factors

Although scholars have argued that terrorists generally are psychologically stable (Crenshaw, 1981; Nijboer, 2012), many have concluded that loners are different and they are more likely than other violent extremists to have a history of mental health issues (Bakker and de Graaf, 2010; Gill et al., in press; Hewitt, 2003; Spaaij, 2010; Stern, 2003). Hewitt’s (2003: 80) quantitative investigation of unaffiliated terrorists in the United States found that psychological disturbance among the “loners” was high, “with at least six of the 27 listed individuals showing symptoms of mental illness.” Stern (2003) also discussed the overrepresentation of mentally ill individuals as lone wolves. Gill et al. (in press) argued that loners are more likely to have a history of mental illness compared with terrorists who might have links to a command and control structure or committed an offense as an “isolated dyad.” They also found that 50% of single-issue lone actors had mental illness compared with Al-Qaeda and right-wing offenders. Finally, Spaaij’s (2010: 862) cross-national study similarly found that lone wolf terrorists are likely to have psychological problems. Indeed, of the five in-depth case studies he crafted, three perpetrators were diagnosed with personality disorder, one with obsessive-compulsive disorder, one with anxiety disorder, and four had experienced severe depression in their lives (see also Pantucci, 2011). Dissenting studies have included the work of Moskalenko and McCauley (2011) who concluded that lone wolves are psychologically stable and Pantucci (2011) who concluded that Oslo lone wolf Anders Behring Breivik showed no evidence of insanity.

In contrast to the many studies that have examined whether loners are more likely to be mentally ill, few projects have studied the general criminogenic conditions of violent domestic extremists. We attempt, therefore, to test for differences in criminogenic conditions comparing loners with other violent extremists by examining mental illness and criminal history characteristics. First, we expect that loners are more likely to suffer from mental illness. Second, we expect that loners are more likely to have substance abuse problems. Third, we expect loners to be more likely to have criminal convictions and, fourth, that loners will tend to have convictions for more serious (violent) crimes.

Attack Style

Also, it is possible that there are significant differences between loners and other violent extremists regarding the strategic decisions they make in conducting their fatal attacks. For example, Phillips's (2012) recent economic analysis examined how loners plan to commit an attack. He concluded that loners prefer assassinations for single targets, but bombings and general armed attacks with guns are the weapon of choice to maximize the number of kills. Phillips (2012: 12) also concluded that "despite a small number of exceptions, when we examine the historical record of attack methods utilized by the lone wolf terrorist engaged in terrorism in the United States we find that the most common attack methods among the lone wolves are also the most common among the transnational terrorists: bombings and armed attacks." In contrast, Spaaij's (2010) comparative study found that loners are more likely than other types of violent extremists to use firearms in the United States, whereas bombings are the weapon of choice for group-based terrorists. He also found that the principal target of lone wolf terrorists is civilians.

In another study, Nunn (2007) examined the geographic clustering of 178 terrorist incidents that occurred between 1997 and 2005 in the United States. He concluded that terrorism generally has a tendency to cluster in larger urban areas, but variations exist depending on the ideological orientation of the terrorist. Importantly, he also examined the geographic attributes of loner terrorism. Nunn concluded that loners are more likely to commit acts of random violence in public settings, sending a message that occupying public spaces, such as abortion or health clinics and airport counters, can be particularly dangerous.

We therefore expect that loners' behavioral decisions regarding targets will be different from other types of extremists. First, loners will be more likely to target government and other public officials. Second, loners will be less likely to attack personal targets or someone that they know. Third, loners will be more likely to commit a random attack in public settings. Fourth, loners will be more likely to use guns to commit their fatal attacks. Fifth, we expect that the average number of victims will be higher for loner attacks (Hewitt, 2003; Michael, 2012; Pantucci, 2011). This hypothesis is consistent with Hewitt's (2003: 78–79) quantitative investigation that found that the majority of deaths occurring between 1978

and September 1, 2001 in the United States were from unaffiliated individuals. However, Stern (2003) argued that loners are at some tactical disadvantage compared with the operational superiority of organized groups. She concluded that loners are therefore limited in their ability to cause harm. Spaaij's (2010: 865) findings from his analysis of lone wolf attacks over 30 years in 15 countries bolstered this argument. Sixth, we also expect that loners are more likely to have been killed by law enforcement during the commission of an incident. Seventh, we expect that loners are more likely to commit suicide before apprehension by law enforcement and, eighth, that they are more likely to conduct discernible "suicide missions."

Personal Characteristics

We also think that the personal backgrounds of loners and other far-right extremists will be dissimilar in many ways. For example, although we anticipate that most far-right extremists are male offenders (see Bloom, Gill, and Horgan, 2012; Reinares, 2004), we would expect that loners are even more likely to be male (Gill et al., in press). Second, we expect that the age of the loners will be significantly different compared with other types of violent extremist offenders (see Moskalenko and McCauley, 2011). Third, we expect that loners are more likely to have military experience compared with other offenders (see Kaati and Svenson, 2011). Gill et al. (in press), for example, found that 26% of their lone actor terrorists had military experience and that approximately 24% of those with military experience had experienced conflict.

Because we have outlined more than 20 hypotheses based on prior research, we list them in Table 1. Hypotheses have been organized in this table according to the specific component of loner extremist homicide being measured.

In Table 1, how the measurement of each independent variable is linked to each research hypothesis also is presented. The measurement procedures for these and all other variables are discussed in more detail in the next section.

Methods

Description of ECDB Data

The data for the current study come from the ECDB, an open-source relational database that includes event-level information on crimes committed by domestic extremists since 1990. The ECDB's process for identifying and collecting extremist crime data from open sources has been adequately detailed elsewhere (Freilich, Chermak, Belli, Gruenewald, and Parkin, in press), and it has proved to be a valid source of data on violent crimes committed by domestic extremists in the United States (Chermak, Freilich, Parkin, and Lynch, 2012). Recent studies have relied on the ECDB to examine the financial crimes committed by domestic extremists (Belli and Freilich, 2009), evolution of domestic extremist groups (Freilich, Chermak, and Caspi, 2009), organizational dynamics of far-right hate groups (Chermak, Freilich, and Suttmoeller, 2013), and far-right homicides (Gruenewald, 2011;

TABLE 1

Stated Hypotheses and Variable Measurements

Hypotheses	Variable Measurements
Engagement with Far-Right Extremism	
1) Loners are significantly more involved in the activities that promote far-right ideology of far-right extremism compared with other far-right extremists.	Number of ways that far-rightists promote far-right extremism. This includes participation in extremist movement events or rallies, tattoos, dress, hosting of shows, websites, and self-admission to extremist beliefs, among others.
2) Loners are significantly less likely to accept a plea bargain compared with other far-right offenders.	1 = loner pled guilty 0 = loner's case went to trial or resulted in some other adjudication outcome
3) Loners are significantly more likely to have published statements, letters, and/or manifestos that highlight their beliefs compared with other far-right offenders.	1 = extremist materials linked to the offender were uncovered during the investigation 0 = no extremist materials were found
Nature of Social Relationships	
1) Loners are significantly more likely to live alone or with nonfamily members compared with other far-right offenders.	1 = live alone or w/nonfamily 2 = lived with parents or other family 3 = lived with spouse/partner 4 = incarcerated 5 = no stable residence
2) Loners are significantly more likely to be divorced, separated, or widowed compared with other far-right offenders.	1 = loner was single 2 = loner was divorced, separated, or widowed 3 = loner was in a dating relationship 4 = loner was married or cohabitating
3) Loners are significantly less likely to have children compared with other far-right offenders.	0 = loner had no children 1 = loner had children
4) Loners are significantly less likely to be connected with others through gainful employment compared with other far-right offenders.	0 = loner was employed 1 = loner was unemployed
5) Loners are significantly more likely to have had unstable childhoods compared with other far-right offenders.	1 = loner parents were married 2 = loner parents were divorced 3 = 1 or more parents of loner were deceased
Criminogenic Factors	
1) Loners are significantly more likely to suffer from mental illness compared with other far-right offenders.	0 = loner had no reported history of mental illness 1 = loner had a history of mental illness
2) Loners are significantly more likely to have substance abuse problems compared with other far-right offenders.	0 = loner had no reported history of drug or alcohol abuse 1 = loner had a history of drug or alcohol abuse
3) Loners are significantly more likely to have a criminal record compared with other far-right offenders.	0 = loner had no reported criminal history as an adult 1 = loner had an adult criminal history
4) Loners are significantly more likely to have convictions for serious crime (i.e., violence) compared with other far-right offenders.	0 = loner had no reported prior arrests for violent crimes 1 = loner had reported prior arrests for violent crimes

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T A B L E 1

Continued

Hypotheses	Variable Measurements
Attack Style	
1) Loners are significantly more likely to attack government and other public officials compared with other far-right offenders.	1 = victim was an abortion provider 2 = victim was a social minority 3 = victim was a civilian 4 = victim was a member of government or the military 5 = victim was a sex offender
2) Loners are significantly more likely to attack victims known to them compared with other far-right offenders.	0 = victim was unknown to loner 1 = victim was known to loner
3) Loners are significantly more likely to attack in public places compared with other far-right offenders.	0 = loner attacks occurred in private residences 1 = loner attacks occurred in publicly accessible areas
4) Loners are significantly more likely to use guns compared with other far-right offenders.	0 = loners did not rely on guns as their primary weapon 1 = loners relied on guns as their primary weapon
5) Loners are significantly more likely to cause increased harm compared with other far-right offenders.	0 = one victim was killed 1 = two or more victims were killed
6) Loners are significantly more likely to be killed by law enforcement compared with other far-right offenders.	0 = loners were not killed by law enforcement 1 = loners were killed by law enforcement
7) Loners are significantly more likely to have died in the commission of an incident by committing suicide compared with other far-right offenders.	0 = loners did not commit suicide during or shortly after the attack 1 = loners committed suicide during or shortly after the attack
8) Loners are significantly more likely to have engaged in a suicide mission compared with other far-right offenders.	0 = loners were not on a suicide mission 1 = loners were on a suicide mission
Personal Characteristics	
1) Loners are significantly more likely to be male compared with other far-right offenders.	0 = loner was a female 1 = loner was a male
2) Loners are significantly more likely to be older compared with other far-right offenders.	Loner age at time of attack
3) Loners are significantly more likely to have military experience compared with other far-right offenders.	0 = loner did not have prior military experience 1 = loner had prior military experience

Gruenewald and Pridemore, 2012). The current study examines ideologically motivated homicides or lethal attacks against victims that have been demonized by political, social, or religious extremist ideologies that were committed by domestic far-right extremists (as defined in the subsequent section).

Homicide Inclusion Criteria

The current study focuses solely on 139 fatal attacks committed by far-right extremists between 1990 and 2010.³ For a homicide to be included in this study, there must have been a response by law enforcement to the homicide (i.e., an arrest was made) and one or more extremist offender had to be charged in the respective case.⁴ All cases occurred in the United States. In addition, at least one perpetrator must have subscribed to a far-right belief system and committed the homicide to further that belief system. As outlined in prior work (Freilich et al., in press), the far-right is operationalized as individuals or groups that are:

[F]iercely nationalistic (as opposed to universal and international in orientation), anti-global, suspicious of centralized federal authority, reverent of individual liberty (especially their right to own guns, be free of taxes), believe in conspiracy theories that involve a grave threat to national sovereignty and/or personal liberty and a belief that one's personal and/or national "way of life" is under attack and is either already lost or that the threat is imminent (sometimes such beliefs are amorphous and vague, but for some the threat is from a specific ethnic, racial, or religious group), and a belief in the need to be prepared for an attack either by participating in or supporting the need for paramilitary preparations and training or survivalism. Importantly, the mainstream conservative movement and the mainstream Christian right are not included.

Description of Cases and Comparisons

Each of the 139 homicides was categorized into loner versus small-cell and group-motivated attacks. Our definition of a loner is consistent with other scholars (Pantucci, 2011; Spaaij, 2010: 856). Although such individuals may be inspired, may sympathize, or may draw from a larger political movement (see Spaaij, 2010), it is critical that such individuals are not actually part of that movement. Thus, three facts had to be empirically determined for an incident to be considered a loner attack:

1. The extremist operated alone at all stages.
2. The extremist was not a member of an extremist (or hate) group (no connection or formal ties).
3. The actions by the extremist were conceived and directed without direction from an external command or hierarchy.

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3. Although all cases involved some type of fatal attack, the ECDB does not clearly distinguish between first-degree murder and other lesser forms of murder. For this study, however, attempts were made to remove cases of involuntary manslaughter.
 4. Cases in which extremists were killed during the attack also were included. We excluded cases in which charges related to the homicide were dropped by the prosecutor and in which all far-right extremists were found not guilty at trial.

Thus, whereas loners may have engaged in some form of communication with others in the movement prior to the attack, there was no evidence that they received operational support or encouragement in preparation for carrying out the fatal act. Our definition of loners aligns with terrorism commentator Berger's (2012: 2) description of loners that states that "[t]he lone wolf we need to worry about is truly solitary and self-motivated: someone who doesn't talk to people about his plans and doesn't require meaningful assistance from informed accomplices. Anyone who fails to meet those conditions is a different kind of threat."

The "different kind of threat" that makes up the comparison cases includes those far-right extremists who offended in small cells or "wolf packs" and other lone actor extremists who were acting on the direction of a formal extremist organization.⁵ Our comparison category also includes extremists who were members of a particular far-right extremist group and who committed an ideologically motivated homicide. As is often done in event-level homicide research, one suspect and offender was selected for each comparison case.⁶ Efforts were made to select the "primary" offender in cases involving more than one extremist. In cases for which it was impossible to identify a primary actor, the first far-right extremist who met the aforementioned inclusion criteria was selected.

Variables

Independent variables seek to capture extremists' engagement with far-right extremism, social relationships, criminogenic factors, attack characteristics, and personal characteristics. The measurement procedures for all independent variables are outlined in Table 1. Although not linked to specific hypotheses, a few contextual variables also are included in the following comparative analyses.

Description of Analysis

We first conduct a bivariate comparative analysis tests (i.e., chi-square analysis, Fisher exact test, and *t*-test of means) to examine the nature of far-right extremist homicides across loners and other far-right extremist offenders and incidents. We also examine whether, and to what extent, extremist homicide characteristics found to be important in the bivariate analysis predict offender affiliation net the effects of other significant characteristics. Therefore, we rely on multivariate analysis to assess the key distinguishing characteristics associated with far-right extremist loners and chose to include only variables found to vary significantly across extremist affiliation. Specifically, we rely on binary logistic regression as this is the

5. Another possible comparison group includes traditional or average homicides. Although such a comparison would not answer the questions posed in the current study, comparing fatal loner attacks with traditional homicides is arguably a worthy topic for future research to explore.

6. See Gruenewald and Pridemore (2012) who relied on a similar approach to examine fatal acts of violence by domestic extremists.

appropriate statistical modeling approach to multivariate analysis when outcome measures are binary coded (1 = loner affiliation, 0 = other far-right extremist affiliation) (Long, 1997).

Findings

We first examined several variables that attempted to capture the ways in which homicide offenders were engaged with the far-right extremist movement (as shown in Table 2). For some variables, comparisons are based on especially small sample sizes, so caution should be used in interpreting these results. Opposite of what we expected, we found that loners were significantly less involved in extremism. That is, loners were less likely to take part in movement-related activities, such as publishing or distributing movement materials and attending protests or rallies. Investigations of loners also were not more likely to result in the discovery of extremist materials. Therefore, we found no evidence that loners rely more on extremist propaganda to “self-radicalize.” This result could be because all types of offenders are relying on these sources equally. None of the other variables capturing engagement with far-right extremism, however, were significantly different across loners and comparison far-rightists. In particular, loners were not less (or more) likely to plead guilty than other far-rightists. In other words, loners were not more defiant when engaging with a criminal justice system that is generally viewed as representative of a corrupt government.

We also considered several criminogenic factors across far-rightist affiliation categories related to mental illness, substance abuse, and criminality. As for mental health comparisons, loners were significantly more likely to have a reported mental health issue compared with other far-rightists. We found support for our hypothesis as more than 40% of loners had a reported history of mental illness, and this was the case for less than 8% of other far-rightists. All other criminogenic hypotheses, however, were not supported. In particular, our hypothesis regarding substance abuse was not supported as there were no significant differences across far-rightist affiliations in terms of reported abuse of drugs or alcohol before or during fatal attacks. Findings also revealed that more than half of both loners and other far-rightist homicide offenders had some sort of adult criminal record. Although loners were slightly proportionately more likely than other far-right extremists to have one or more prior arrest, the difference across groups was not significant. We also found that there was no statistical difference across groups specifically for violent prior arrests.

The next set of variables attempted to capture the nature of far-rightists’ social connections with family members and others. Based on the findings also shown in Table 2, loners are disproportionately more likely to live alone or with individuals other than family and intimate partners. In this way, the findings lend some support for our hypothesis. In contrast, other far-right extremists are disproportionately more likely to live with parents or other family members. The numbers are especially small for other living arrangement categories, but it is clear that loners less commonly live with a spouse or cohabitate compared with other far-rightists. Other conclusions we can draw regarding living arrangements are not

TABLE 2

Bivariate Statistics for Loner Offenders and Other Far-Right Offenders

Variables	Homicides Committed by Loner Far-rightists (n = 47)		Homicides Committed by Other Far-rightists (n = 92)		Chi-Square/T-Test ^a
	n	Percent	n	Percent	
Engagement with Extremism					
Level of movement involvement	47	3.2 (avg.)	92	3.5 (avg.)	*
Pled guilty	10	21.7	28	32.2	
Extremist materials found	14	29.8	24	26.1	
Nature of Social Relationships					
Living arrangements					†
Lived alone or with nonfamily	12	46.2	11	24.4	
Lived with parents or other family	10	38.5	13	28.9	
Lived with spouse/partner	1	3.8	5	11.1	
Incarcerated	0	0.0	5	11.1	
No stable residence	3	11.5	11	24.4	
Relationship status					*
Single	15	42.9	17	40.5	
Separated/divorced/widowed	13	37.1	7	16.7	
Dating	1	2.9	11	26.2	
Married/cohabitating	6	17.1	7	16.7	
Employment status					
Unemployed	15	39.5	20	42.6	
Employed	20	52.6	23	48.9	
Student	3	7.9	4	8.5	
Children	12	25.5	17	18.5	
Parents' status					
Parents are married	12	75.0	12	66.7	
Parents are divorced	4	25.0	10	33.3	
Criminogenic Factors					
Mental illness	19	40.4	7	7.6	***
Prior drug/alcohol use	16	34.0	27	29.3	
Prior arrest(s)	29	61.7	47	51.1	
Violent prior arrest(s)	16	22.8	21	34.0	
Attack Style					
Victim type					†
Abortion providers	8	17.0	10	10.8	
Social minority	25	53.2	66	71.0	
Civilian	4	8.5	3	3.2	
Government/military	10	21.3	11	11.8	
Sex offender	0	0.0	3	3.2	
Victim known to offender	10	22.7	22	24.4	
Public location	41	87.2	75	79.6	

Continued

TABLE 2

Variables	Homicides Committed by Loner		Homicides Committed by Other		Chi-Square/T-Test ^a
	Far-rightists (n = 47)		Far-rightists (n = 92)		
	n	Percent	n	Percent	
Survivalist background	5	10.6	6	6.5	
Gun used (as primary weapon)	39	84.8	37	40.2	***
Multiple victims	12	25.5	9	9.7	*
Killed by police	5	10.6	3	3.3	
Committed suicide	2	4.3	6	6.5	
Possible suicide mission	12	25.5	2	2.2	***
Personal Characteristics					
Male	47	100	89	96.7	
Age	46	35.3 (avg.)	90	27.2 (avg.)	***
Military background	12	25.5	7	7.6	***
Other Variables					
Region					
Midwest	5	10.6	11	11.8	*
Northeast	13	27.7	10	10.8	
South	19	40.4	31	33.3	
West	10	21.3	41	44.1	
Population over 200,000	13	27.7	32	36.0	
On or after 9/11	24	51.1	28	30.1	*

^aThe Fisher's exact test was used to compare categories of small sample sizes ($n \leq 5$).

† $p \leq .10$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ (two-tailed tests).

as clear, and we find little support for the notion that loners are less socially attached than other far-rightists who commit homicide. We found that loners were not more likely to be unemployed compared with other far-right extremists who commit ideologically motivated homicides. Approximately 40% of loners were unemployed and 43% of other far-rightists were unemployed. Of all offender-level variables related to the nature of far-right extremist relationships, only the living arrangements were slightly significantly ($p \leq 0.1$) different across loner and other far-right extremist affiliations. As for having children, there was no significant difference across loners and other violent far-rightists. This finding also was not supportive of our hypothesis. In addition, the findings did not support our hypothesis regarding the childhood experiences of loners and other far-rightists. Opposite of what we expected, we found that the parents of loners were proportionately less likely to be divorced than the comparison group.

We also considered several attack-style characteristics across suspect affiliation categories, including the type of victim selected by far-rightists. Although bivariate significance tests indicated that there were no important differences across groups, there were some

expected differences in the proportion of loner attacks targeting government or military officials. Approximately 21% of victims of loner homicides targeted government or military officials, whereas this was true of only approximately 12% of comparison homicides. One similarity across far-right affiliation categories was victim–offender relationships. Not supporting our hypothesis, slightly less than a quarter of all far-rightists regardless of affiliation had prior relationships with their victims prior to the attacks. We also considered the location types in which homicides most often occurred. We found that although loners were proportionately more likely to commit attacks in public locations or settings outside of private residences, reported differences did not meet a level of statistical significance. Supporting our hypothesis, we found stark differences across groups in the proportion of fatal attacks committed with firearms. Whereas loners were more likely to rely on firearms (84.8%), only approximately 40% of lethal attacks committed by other far-rightists involved firearms as the primary weapon. Instead of firearms, blunt objects, knives, and bodily weapons were proportionately more likely to be used in comparison homicides. In regard to the number of victims killed in each homicide, loners were unique from comparison offenders as they were proportionately more likely to target more than one victim. This finding did support one of our hypotheses. Nonetheless, multiple-victim attacks were rare. Moreover, loners were more often killed by police (10.6%) compared with other far-rightists (3.3%). Even though these findings partially support our hypothesis, the numbers of far-right extremists involved in such behaviors are especially small and the findings should be interpreted with caution. For instance, only five loner cases involved “suicide by cop” and three other far-right comparison cases involved fatalities at the hands of law enforcement. As for suicidal behaviors by far-right homicide offenders, we found that there were no significant differences across far-rightists who committed suicide, which did not support our hypothesis. It was shown, however, that loners were reported as being significantly more likely to participate in possible suicide missions relative to comparison far-rightists.

We also examined several personal characteristics of loners and other far-right extremist homicide offenders. These findings also can be found in Table 2. We found that most loner extremists and other far-right “primary” offenders were White males. In this way, loners did not significantly differ from other far-right extremists who committed ideologically motivated homicides. Moreover, our hypothesis that loners would be more likely to be male than other far-right extremists was not supported because most far-right homicide offenders and other far-rightists were male. Bivariate findings, however, did indicate that far-rightists differed from other far-right homicide offenders in regard to age. Far-right loners were on average 35 years old, whereas other far-rightists were significantly younger at 27 years of age. Another interesting finding regarding personal characteristics of far-rights is the significant difference in military backgrounds between loners and other far-right extremists. Supporting our hypothesis, loners were significantly more likely to have prior experience with military service. Although more than a quarter of all loners had known prior military experience, the same was true for less than 8% of other far-right homicide offenders.

We also examined three variables pertaining to the temporal and geographic distributions of far-right extremist homicides and found similarities and differences across loner and comparison attacks. The only significant difference was in how attacks were distributed across regions of the country. Loner attacks were disproportionately more likely to occur in the Northeast relative to comparison homicides. In contrast, other ideologically motivated far-right homicides occurred disproportionately in the West. In addition, homicides tended to occur in smaller towns and cities, approximately 28% of loner attacks and 36% of comparison attacks. No significant differences were found across groups. In addition to geographic variables, we also considered when the far-right homicides occurred and found significant differences across groups. Supporting recent reports, as well as our hypothesis, we found that loner attacks were disproportionately more likely to have occurred since the 9/11 terrorist attacks.

Multivariate Findings

We entered each variable shown to be significantly different across groups into a binary logistic regression model to understand more clearly how particular characteristics were associated with loner affiliation net the effects of other statistically important variables.⁷ As shown in Table 3, five homicide event variables were significant predictors of loner affiliation.

First, loners were significantly more likely to have had prior military experience than other violent far-rightists when controlling for other homicide characteristics. Second, loners were significantly more likely to have struggled with a mental illness prior to the homicide. Third, it seems that loners were significantly different from other far-rightists in regard to age net the effects of other homicide variables. Specifically, loners were significantly younger than offenders from comparison homicides.⁸ Fourth, loners were significantly more likely to have been alienated from others by way of divorce, separation from a partner, or the death of a partner, as compared with the reference category. Fifth, and finally, loner homicides were significantly more likely to occur on or after the 9/11 attacks when compared with other far-right homicides. Homicide variables that were not shown to be significant predictors include weapon use, number of victims, offender involvement in the movement, and the region of the country in which the attack occurred.

7. Only variables for which there were five or more homicides in each category and for which there were significant differences across groups at the $p \leq .05$ level were included. One exception was the "dating relationship" variable, which was included as part of a series of dummy variables. Although significant at the level of $p \leq 0.1$, the cell numbers for this variable are too small for findings to be interpretable.

8. This finding has an opposite effect in initial comparisons. It is only when other variables that are positively associated with age (e.g., military service) are removed from consideration, or held constant, that age has a significant and negative effect on the dependent variable.

TABLE 3

Predicting Loner Affiliation Using Binary Logistic Regression (1 = far-right loner, 0 = other far-right extremist)

Variables	<i>b</i> (SE)	Odds Ratio
Military Background	2.3 (1.2)*	10.2
Offender Mental Illness	3.3 (1.2)**	27.1
Suspect Age	-0.10 (.05)*	0.9
Suspect Relationship Status		
Married or cohabitating (reference)		
Divorced, separated, or widowed	2.5 (1.3)**	12.3
Single	-0.3 (1.3)	0.7
Dating relationships	-3.0 (1.8)†	0.1
Gun Used as Primary Weapon	1.2 (1.0)	3.2
Multiple Victims	1.5 (1.0)	4.6
After 9/11	2.2 (0.9)**	9.2
Level of Involvement in Movement	-0.6 (.4)	0.5
Region	—	—
Midwest (reference)	—	—
West	-1.2 (1.2)	0.3
South	-0.6 (1.2)	0.5
Northeast	-0.6 (1.4)	0.6
Constant	2.5 (2.4)	11.6
Pseudo <i>R</i> ²	0.64	
-2 Log likelihood	54.2	

† $p \leq .10$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Discussion and Policy Implications

Since the September 11th attacks, there has been a large investment of resources to understand international and domestic terrorism better. Early discussions understandably focused on terrorist organizations like Al-Qaeda and on identifying their capacity to formulate and carry out additional attacks. A growing body of scholarship also has begun examining whether loners pose a unique and growing threat to public safety. Policy makers and scholars have argued that such attacks have increased and that terrorist organizations have used technology and propaganda to radicalize individuals. The implication is that unaffiliated lone actors will plan and carry out attacks independently. Our literature review demonstrates that gaps remain in that few studies have quantitatively compared loners with other violent extremists who are affiliated with extremist organizations. This study provides an important step in this direction, highlighting how far-right loners are similar and different from other violent far-right extremists. We relied on past research to develop and test more than 20 hypotheses using data from the ECDB. This final section of the study integrates what we learned into a broader discussion of the policy implications.

Barnes's (2012) recent law review article examined the rise of lone wolf terrorism in the United States and considered ways to respond to it. Barnes argued that lone wolves are tactically inferior to terrorist organizations and thus have little capacity to cause significant harm. He concluded that the number of lone wolf attacks has increased largely because of the effectiveness of current counterterrorism tactics. Barnes claimed that lone wolf attacks are a sign of weakness within extremist movements and occur because terrorist organizations have been wounded by counterterrorism strategies. In other words, lone wolves have filled a terrorism void. Most importantly, Barnes argued that unlike organized group terrorism, counterterrorism policy is irrelevant for protecting the homeland from lone wolves. He wrote (2012: 1654–1655):

The evolution of homegrown terrorism to the individual level, therefore, renders obsolete much of the post-9/11 law enforcement architecture. Lone wolf terrorists will not be caught in stings, make inculpatory statements to confidential informants, or divulge their plans in intercepted calls or emails. Lone wolves will target sites lacking robust security; federal, state, and local governments cannot protect every mall, bus stop, and restaurant where a solitary extremist could cause harm. Legal weapons and firearms are likely to continue to be available, supplying adequate means to attack unsecured locations.

Barnes (2012) thus concluded that the best approach to responding to lone wolves is to do nothing. Because lone wolves are tactically inferior and current approaches are not applicable to lone wolves, it is simply not worth the financial and civil rights costs to attempt to counter these types of attacks.

We disagree. Although we concur that it is difficult to identify lone actors prior to the commission of an offense, our findings identify several important differences between loners and other types of violent extremists that could be used by policy makers and analysts to craft policies and strategies designed to prevent and preempt loner attacks. We also find that many loner attacks have in fact been prevented using traditional counterterrorism strategies.

It is difficult to agree with the conclusion that loners are not a significant terrorist threat for several reasons. First, our research indicates that there has been an increase in the number of loner attacks, as the multivariate analysis shows that there have been significantly more loner attacks that have occurred after September 11th compared with before. We do not know why this has been the case. That is, has the lone wolf rhetoric that has been promoted by leaders of the far-right and other extremist movements led to structural changes in how such groups are organized and the choice of tactics used? Some important empirical work has supported such an evolution (see Damphousse and Smith, 2004), but analyses of more recent federal terrorism cases are needed. Has technology had an impact? That is, are individuals self-radicalizing and taking independent action after consuming the plethora of hate literature available on the Internet? Second, other research has indicated that loners account for the majority of terrorist plots that have occurred on

U.S. soil since the 9/11 terrorist attacks (Strom et al., 2010). Third, the conclusion that loners are operationally inferior is an important topic to debate. It is true that loners do not have the support and financial backing of well-organized terrorist organizations, but one must consider whether such support is even necessary to do significant harm. Also, it is reasonable to conclude that an attack like Oklahoma City, which was carried out by just two like-minded individuals and a little support from others could have as easily been carried out by a single individual. In addition, although there may be some tactical restrictions because of the lack of support personnel and expertise limitations, loners have an advantage in that they have fewer interactions with others and their planning may be more concealed. Thus, although it seems that there is reason to be concerned about an uptick in loner attacks, there is still much that needs to be known in terms of understanding why such an increase has occurred and how potential loners may react or adapt to their external environment (including law enforcement prevention strategies).

Also, it seems that the current counterterrorism architecture established after the 9/11 attacks has had considerable value in the prevention of loner and other terrorist plots. More loner attacks have been prevented than successfully completed since 2001 (Strom et al., 2010). Although successfully executed attacks have been committed by loners, there also have been a large number of foiled loner plots. For example, cases like Amine El Khalifi, who planned to attack multiple targets in the Washington, DC area as a suicide bomber, was foiled by a citizen tip, monitoring with technology, and undercover police operations. Similarly, Jose Pimentel, who read about bomb making and took steps to build pipe bombs, was derailed because of information that was posted online leading to a surveillance strategy with informants. These cases are not isolated examples of successful terrorism investigations. Strom et al.'s (2010) important research examined 86 terrorist plots and found that the highest percentage of plots that were foiled (40%) were those executed by loners. He also found that more loner plots were prevented than small-cell (organized and underorganized) and large group attacks. These researchers also concluded that the activities of federal law enforcement were particularly important for preventing such attacks. There is certainly a need for additional research to understand more clearly the characteristics of foiled plots and to consider different types of foiled plots, but this research and specific cases lead to the conclusion that preventing loner attacks is possible.

It is clear, however, that loners are indeed different in several ways compared with other violent far-right extremists. Although research has discussed how loners are unique, these conclusions were made without simultaneous comparison with other offender types.

The systematic comparison of far-right loners and other far-rightists presented here highlighted ways in which loners are both different and surprisingly similar to other far-rightists. Bivariate comparisons of how loners engage in far-right extremism, the nature of their social relationships, criminogenic factors, style of attack, and personal characteristics found that far-right loners are more likely to have a military background, less likely to be married, more likely to plan on dying at commission of the crime, live alone, use a firearm,

kill multiple victims, and select government targets. Also, it is interesting that loners were similar to other far-right extremists on gender, race, criminal record, drug and alcohol abuse, parents' relationship status, employment status, involvement in extremist activities, use of survivalist tactics, willingness to plead guilty, having children, and their relationship with the victim. Using multivariate analysis, we also tested what factors are particularly important for distinguishing between loner and other far-right offenders net the effects of other variables. Variables that significantly distinguished loners from other far-rightist homicide offenders include military background, age, mental illness, and relationship status.

Although some scholars argue that loner attacks are not preventable (Barnes, 2012), it seems that increased emphasis on intelligence, the use of undercover operations and informants, and task force strategies are in many ways working to prevent loner attacks. Although steps must always be taken to ensure that people's civil rights are not violated, the results presented here may provide some direction for better modifying and redirecting some ongoing counterterrorism efforts to prevent future loner attacks. Three elements of current counterterrorism policy are particularly important.

1. *Partnerships.* The intelligence community has changed significantly since the September 11th terrorist attacks. Intelligence gathering has always been a priority of federal agencies, but the intensity of intelligence analysis has increased dramatically since 2001. In addition, another critical change is the building of a nationwide infrastructure for the collection, dissemination, and analysis of intelligence. Fusion centers have been institutionalized in all states with an expectation that state, local, and tribal law enforcement agencies provide actionable intelligence that then is shared with federal agencies. The FBI has changed its focus and approach significantly, hiring an extraordinary number of additional intelligence analysts. There is an expectation that all law enforcement agencies develop an intelligence capacity, generate intelligence bulletins, report suspicious activities, and share what they know with other agencies. Information sharing is critical, but fusion centers and federal law enforcement agencies have worked to build partnerships not only with other law enforcement agencies but also with many other government, social service, and private organizations. In addition, national and state fusion centers have attempted to build relationships with military organizations.

Two variables that were critical for distinguishing loners from other far-rightists were those with military backgrounds and those with mental illness. Several reports and concerns have been raised about the potential influence of far-right ideology within various military branches (Potok, 2006; SPLC, 2008). Military organizations have sophisticated intelligence units, and thus, it would make sense to parlay existing partnerships between law enforcement and military to develop a strategy to identify potential loner risks. In addition, it is one of the most consistent conclusions in previous research, and it is substantiated in this article that loners experience elevated rates of mental health issues. Again, partnerships with social

service agencies might lead to potential tips and leads. Importantly, future research needs to examine more closely the types of mental illness, the types of contacts loners had with mental support facilities, and the nature of media reporting on the mental illness of these offenders to understand potential responses more clearly.

2. *Technological Surveillance.* Although loners were not significantly more likely to produce or have extremist materials when arrested, nearly 30% of both loners and other far-rightists were engaged in some type of extremist literature. Most of this engagement occurs electronically in terms of downloading materials from the Internet, participating in chat rooms, and collecting intelligence via open sources. The use of the Internet by loners and other extremists may be increasing as a tool used for recruitment, sharing of tactics, and attack planning. The reliance on the Internet, however, opens loners and other extremists to outsider scrutiny. Law enforcement can monitor and analyze websites and postings, enter chat rooms, and create phantom websites to engage extremists in ways that would help them identify specific threats. In addition, law enforcement officials should attempt to build relationships with those individuals that are the moderators of chat rooms. The relationships could result in the moderators providing information about those extremists who are removed from chat rooms for not following rules. These strategies are not new, but it seems that a better understanding of how loners are unique can help investigators engage extremists as well as monitor chats rooms for individuals of potential concern. Law enforcement also could take the lead in creating websites that engage extremists in different ways that brings individuals to their attention. Here, they are gathering intelligence on individuals, organizations, and how extremists interact.

Similarly, carrying out counterpropaganda strategies on the Internet seems to make good sense. It is clear that extremists are reading these materials, and thus, there is an opportunity to impact broader discussions of hate in society. These discussions can help to create a context for individuals or groups to take action. Hewitt (2003) referred to it as political zeitgeist—where specific terrorist actions occur within the context of broader social movements. Engaging these social movements and the issues that are important to these movements might provide opportunities to counter frustration and beliefs that lead to violence (see Dugan and Chenoweth, 2012, on the promise of conciliatory actions).

3. *Sharpening Threat Assessment.* Research such as that presented in this article also is valuable in terms of developing tools to identify potential loner threats. For example, more than 80% of the loners in this study used firearms for their attack compared with slightly more than 40% of the comparison offenders. We need to understand loners better by comparing them with school shooters and perhaps using strategies that seem to be promising. Like the loners studied in this article, school shooters tend to be males, use guns, plan their attack over a significant period of time, and publicly discuss their

intentions in some way with others (see Borum, Cornell, Modzeleski, and Jimerson, 2010). Friends, acquaintances, coworkers, and people on the Internet are likely to have interacted with these loners. In responding to school shootings, the FBI, Secret Service, and the Department of Education all recommend using threat assessment—investigations are “triggered by the student’s own threatening or concerning behavior” (Borum et al., 2010: 31). Such a strategy also has promising application to preventing loner violence. Critical to developing such a strategy is to build on the existing intelligence infrastructure to increase significantly the provision of tips and leads from citizens, coworkers, and friends about specific incidents or rhetoric (something said or posted on the Internet) that is cause for concern. If such tips and leads can be increased and be of value, then it seems that a response system is already in place where law enforcement can be highly effective at using undercover operations and informants to investigate (see Dahl, 2011; Strom et al., 2010). These strategies have been critical to foiling plots of terrorist organizations and have worked in preventing previous attempts by loners to attack.

These recommendations are in many ways preliminary as a significant need for additional research on this important topic remains. As discussed, it would be important to compare other types of extremist loners and to compare strategies more closely that resulted in a foiled plot with those that were successfully executed. Moreover, it seems as though there would be value in systematically comparing loners with school shooters. Although an additional quantitative analysis of such incidents is needed, there also would be value in interviewing loners. Finally, it must be emphasized that little evidence-based research has been published evaluating the promises and pitfalls of various types of counterterrorism strategies. It seems from previous work on foiled plots that extant counterterrorism policies have been effective at least in terms of the prevention of such actions. Although some recent publications impressively consider some types of counterterrorism strategies (e.g., Dugan and Chenoweth, 2012), a great need remains to continue to build a knowledge base to understand more clearly what works in responding to loners and other threats from domestic extremists.

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Disaggregating Terrorist Offenders: Implications for Research and Practice

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Far-right–inspired violence in the United States is on the rise (Perliger, 2013), and there is a growing realization within policy circles of the increasing threat from so-called “lone wolf” terrorists of different ideological hues (Simon, 2013). A more in-depth understanding of individual offenders and their behaviors (both antecedent and offense-commission) is therefore of great importance not only to the academic literature but also for practitioners tasked with countering the problem. The need for such research is also driven by the fact that a preponderance of studies have focused on violent Islamist organizations for more than a decade. Given the nature of the threat presented by al-Qaeda, this is understandable, but a side effect is that our understanding of the nature of far-right–inspired homicide lags behind our understanding of the behaviors associated with analogous movements.

Recognizing these features of the existing literature and the current security environment, Gruenewald, Chermak, and Freilich (2013, this issue) provide an empirical assessment of the behavioral underpinnings of far-right–inspired homicide offenders and compare group-based offenders with lone offenders. Gruenewald et al. (2013) test 23 hypotheses, each of which is derived from a careful examination of the existing literature. Using inferential statistics, they find several significant differences between lone and group offenders. For example, the bivariate analysis suggests that compared with group offenders, far-right lone offenders are statistically more likely to be unmarried, have experience of the military, live alone, use firearms, select government targets, kill more people, and die in the commission of their offense. The multivariate analysis also suggests that age and mental illness also significantly distinguish lone offenders from group offenders (e.g., lone offenders are typically older and more likely to have a history of mental illness).

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For the remainder of this essay, we consider the salient issues in the available relevant literature in relation to Gruenewald et al.'s (2013) study by identifying and discussing specific and actionable next policy and research steps, as well as this study's potential impact on the current state of knowledge.

Research Implications and Considerations

Reviews of the terrorism research literature have regularly highlighted the paucity of original data that inform analyses (Schmid and Jongman, 1988; Silke, 2001, 2004). In the most recent review of the literature, Silke (2013: 34) noted: "[O]ne feels that a great deal more needs to be done before research is consistently building on past work rather than rehashing old data." Although the use of inferential statistical methods is certainly on the rise with relation to terrorism research, these studies typically tend to be based on terrorist events rather than on the individual offenders. This is largely because of the data available from the Global Terrorism Database. More recently however, there have been a handful of large-*N* studies of terrorist group membership that primarily use descriptive statistics (Gill and Horgan, in press; Horgan and Morrison, 2011; Magouirk, Atran, and Sageman, 2008; Reinares, 2004; Sageman, 2004). Gruenewald et al.'s (2013) article is a major next step in the study of the individual terrorist. Their development of the U.S. Extremist Crime Database (ECDB) provides a solid empirical basis from which inferential statistical approaches to the study of extremists and most importantly extremist behavior can be conducted.

Gruenewald et al.'s (2013) study highlights significant behavioral and personal differences between far-right-inspired lone and group offenders. Although some of these differences were expected based on their survey of research on lone-actor terrorism, they neglected to mention that a few studies of different crimes have found broadly similar results. For example, Alarid, Buron, and Hochstetler's (2009) study of robberies showed that group offenders were more likely to be younger, unmarried, and less educated. In terms of target selection, there was little difference between the difficulty levels of robberies chosen by group and solo offenders, which runs counter to much theorizing concerning "strength in numbers," and offending (see Felson, Baumer, and Messner, 2000, for example). Using vastly different samples, studies comparing lone and group rapists have found that the former tended to be significantly older (Bijleveld and Hendriks, 2003; Hauffe and Porter, 2009; Ullman, 1999; Wright and West, 1981), significantly more likely to be married and have children, significantly less likely to have a history of substance abuse (Hauffe and Porter, 2009), significantly more likely to have previous convictions and problematic personality structures (Bijleveld and Hendriks, 2003), and significantly more likely to be employed (Ullman, 1999). Hickie and Roe-Sepowitz's (2010) study of female juvenile arsonists found solo offenders more often came from unstable homes; more often experienced school difficulties, behavioral problems, and negative emotions; and expressed suicidal thoughts more regularly (the latter finding is particularly relevant to Gruenewald et al.'s study when we

consider their finding that lone offenders were more likely to die in the commission of their offense).

Block's (1985, 1986) study of Chicago-based homicides illustrated that group offenders were significantly younger than lone offenders. Cheatwood and Block's (1990) study on homicides in Baltimore also found a disproportionate number of juvenile offenders engaging in homicides as members of groups rather than as individuals. In the most comprehensive of such analyses, Clark (1995) analyzed data across nine U.S. cities. Again, group offenders were significantly younger. Similar to Hauffe and Porter's (2009) results (discussed previously), lone offenders were less likely to have a history of substance abuse than group offenders. Unlike research on robberies, group homicide offenders were more likely to have previous criminal convictions (Clark, 1995). Aggregating a large number of crimes, Van Mastrigt and Farrington (2011) analyzed U.K. police data; group offenders were significantly younger than lone offenders and tended to have more criminal convictions. This finding is common when the offender sample is aggregated across crime types (Erickson, 1971; Hindelang, 1976; Reiss and Farrington, 1991). Collectively, these studies should raise future questions about what factors drive these differences across crime types. For example, answers may lie in individual decision making, gatekeeper selection effects, and group dynamics and influences. The collective findings also suggest that some factors may be crime specific (e.g., previous convictions), whereas others may be crime general (e.g., age and mental illness). These studies also highlight, from a policy and practitioner perspective, whether desistance and disengagement from crime is a different process for solo and group offenders.

The importance of Gruenewald et al.'s (2013) study lies not only in its use of inferential statistical methods and in its delineation between far-right-inspired lone and group offenders, but also the findings have important implications for issues long debated within the literature, particularly issues concerning mental illness and terrorist involvement, as well as issues concerned with group processes.

In the 1970s, the first wave of studies on the individual terrorist offered psychopathological interpretations that perceived terrorist behavior to be essentially deviant. An underlying assumption in this research strand is that compulsion to join the militant organization, or the vulnerability to recruitment, is inherent in those who become engaged in militancy. Motivation to participate is therefore situated within the individual in isolation. To this end, researchers have postulated deviant characteristics of the terrorist. For Victoroff (2005), this field was "largely characterized by theoretical speculation based on subjective interpretation of anecdotal observations" (p. 3). In the 1980s, psychoanalytic approaches (with a particular emphasis on the concept of narcissism) largely replaced psychopathological explanations. These findings are reasonably similar to the preceding assumptions of the terrorist personality being essentially abnormal but perceive this abnormality as determined by unconscious drives and urges originating from childhood rather than inherent personality flaws.

Over the past 15 years or so, a growing awareness of the need to understand the group process has come to fruition. This has largely been aided by empirical studies that have

engaged in first-hand interviews and by the incorporation of theory from social psychology. This stream of research has been successful at downplaying the role of personality and mental health issues with regard to terrorist involvement to the extent that one noted academic, who in the past championed psychoanalytical interpretations of terrorist motivation, argued that “a clear consensus exists that it is not individual psychology, but group, organizational and social psychology, that provides the greatest analytical power in understanding this complex phenomenon” (Post, 2005: 7). Although the studies of the 1970s and 1980s were correctly debunked on methodological grounds, Gruenewald et al.’s (2013) findings suggest that the existing consensus that mental illness never plays a role in terrorism and that terrorist behavior can be purely explained by group processes is likely to be a fallacy.

With regard to group processes, Gruenewald et al.’s (2013) study supports recent work that has started to reexamine the role of group processes in terrorism. For example, the debate has been widened by Taylor (2010: 121), who argued that “group-focused causal accounts fail to offer sufficient explanations of the behaviors identified” in his case studies, whereas Gill (2012) attempted to refine the nature of role-specific qualities and group-based behavior. Although many studies of the individual terrorist are fixated with understanding motive and/or radicalization (this is also true for media accounts if we examine the coverage regarding the recent Boston Marathon bombings), Gruenewald et al. instead focus on behavior. Their findings that lone offenders are significantly more likely to have experience of the military and live alone also importantly provide insight into capability. Group membership provides individuals not only the operational capabilities necessary to perform a terrorist attack but also the mechanism for moral disengagement (Gill, 2012). Research literature from military psychology has suggested that many factors inhibit individuals from engaging in fatal violence against others. For example, Marshall concluded that “the average and healthy individual . . . has such an inner and usually unrealized resistance towards killing a fellow man that he will not of his own volition take life if it is possible to turn away from that responsibility . . . at the vital point” (cited in Grossman, 1995: 29). Absent a group setting, terrorist violence may be difficult to commit for practical and psychological reasons. In the absence of a group, an individual may need other factors to (a) provide security, (b) help overcome inhibitions against committing violence, (c) help develop the necessary practical skills, and (d) finance an operation. Here, variables found to be significant in the current study such as living alone at the time of the attack and military training provide the capabilities to turn motivation into action for lone offenders. This is also true for hypotheses that were unsupported, such as lone offenders being more likely to be unemployed. Without a group to help an individual plan, prepare, and carry out a successful attack, the lone offender must have a steady source of income. This observation is highlighted in the case of Anders Breivik in Norway, who financed his operations through several legal and illegal activities in the years before his attack and avoided delaying his attack further because he was having liquidity issues and feared he could not (a) keep renting the

farm where he built his improvised explosive device and (b) rent a car for the operation itself.

With regard to mental illness and terrorism, Gruenewald et al.'s (2013) finding that more than 40% of lone offenders had previously been diagnosed with mental illness is one of the most statistically significant findings from the multivariate analysis. Despite its importance, this finding receives minimal attention in the concluding remarks and policy implications. This may be born out of discrepancies across the literature concerning mental illness and terrorism, leading to the current existing false dichotomy that an act of targeted violence was either the actions of a terrorist or the actions of someone who was mentally ill. Gruenewald et al. do suggest important methods for identifying diagnoses, but we hold the opinion that future research should use mental illness as a central unit of analysis. In doing so, it would provide a better understanding of the complexity of mental illness with relation to terrorist behavior and provide the possibility to examine how the other variables would affect and be affected by the offender suffering from mental illness. In other words, the mental illness variable is likely to stem from several other variables accounted for in the ECDB database and impact many other variables also. For example, research by Elisha, Castle, and Hocking (2006) illustrated that social isolation is highly prevalent among those diagnosed with a mental illness. Of their 3,800 observations of individuals diagnosed with a psychotic illness, 58% were also characterized as being socially withdrawn. Butterworth and Rodgers (2008) demonstrated that couples with at least one spouse diagnosed with a mental illness suffer higher rates of marital disruption than non-mentally-ill couples.

Using mental illness as a central variable with relation to the criminogenic factors may also be a promising approach. As Anderson (1997) explained, the symbiotic relationship between mental illness and criminal behavior is complex. Comorbidity of mental illness with other behaviors is well documented across the literature and includes substance abuse (Todd et al., 2004) and violent and criminal convictions (Anderson, 1997). It is also a common understanding in psychiatric practice (Diagnostic and Statistical Manual [DSM] and International Classification of Diseases [ICD]). Gruenewald et al.'s (2013) study found that 34% of lone offenders had substance abuse problems and that 61.7% had prior arrests. Taking into consideration the complexities that comorbidity brings, it may be necessary in the future to distinguish between lone offenders who were mentally ill and those who were not to determine and compare the rates of substance abuse and criminal convictions, as well as compare these with group actors.

Many different mental illnesses display impulsivity as a problem behavior (DSM and ICD), which affects many aspects of living and may affect the attack types of offenders, as well as the primary weapon usage. The current study found that 84.8% of lone offenders used a gun, compared with 40.2% of group offenders. This finding is highly significant, but if one takes into account the country that the data were taken from (the United States) and the gun control laws, it could be hypothesized that lone offenders were more likely to use a

gun because nearly half struggled with impulse control and guns are freely and immediately available.

It is also interesting to note the potential link between the highly significant finding that lone offenders were more likely to partake in a suicide mission compared with group offenders given the higher levels of mental illness found in lone actors. This finding is interesting because suicide risks are much higher in the mentally ill population, and if non-mentally-ill lone actors were investigated separately, this figure may decrease to a value approaching that of group-based offenders.

Finally in relation to mental illness, Gill, Horgan, and Deckert (in press), and many of the group versus solo offender studies cited previously, also found the average age of lone offenders to be older than that of group offenders. This finding may provide support for the idea that a different temporal trajectory into criminality is at play for lone- and group-based offenders. It may be necessary to consider and examine whether the increased age range is a result of the later onset of mental illness. For example, military service personnel are at high risk of developing posttraumatic stress disorder (PTSD) (Sundin et al., 2010), which again may in part explain the highly significant discrepancies between lone and group offenders

Future Policy Considerations

Gruenewald et al. (2013) identified three policy recommendations that should be tailored from preexisting policies to fit the problem of lone offenders. Importantly, Gruenewald et al. make the point that lone offender attacks are preventable, which runs counter to several current studies that have not had the benefit of the high-quality data sets or rigorous methodologies that Gruenewald et al. used (Barnes, 2012; Michael, 2012; Simon, 2013).

The first recommendation is to increase intelligence partnerships between law enforcement and other organizations such as military intelligence units and social service agencies. This suggestion stems from the finding that lone offenders were significantly more likely to have military experience and a history of mental illness. We suggest that this could go further. The policy implications of our suggestions regarding the future study of mental illness with relation to terrorism suggests using multiple agencies at numerous intervention stages (social services, policing agencies, the courts, military organizations, psychiatric hospitals, weapons providers, community programs, financial agencies, intelligence agencies, and the media), which could all cooperate to aid in prevention and reduction efforts. The second recommendation involves increasing technological surveillance, which spans a wide range of functions including monitoring websites and chat rooms, collecting intelligence, creating fake websites, building relationships with chat room moderators (and thereby increasing guardianship), and countering extremist narratives. These behaviors, if applied correctly, could also help prevent and disrupt online group-based offenders. The final recommendation is to sharpen threat assessment tools, which is similar to recommendations stemming from broadly similar studies of school shooters and politically motivated assassins (Fein and Vossekuil, 1999; Vossekuil et al., 2002).

The significant behavioral differences between lone and group offenders found using the ECDB data suggest the need for a tailored response to both subgroups. It also serves to raise further questions about whether these differences hold true for other ideological motivations. Gill, Horgan, and Deckert's (in press) study suggests that identifiable behavioral differences exist among al-Qaeda-inspired, extreme right-wing, and single-issue lone-actor terrorists. The ECDB data also focus solely on offenders who commit fatal attacks. It would be interesting to observe what patterns hold for those who committed attacks that caused no fatalities as well as those whose plots were interrupted preattack. Finally, as mentioned, the ECDB data focus on only U.S.-based offenders, which leads to the question of whether this group of offenders is more likely to use firearms because of the smaller opportunity costs involved.

In conclusion, hopefully the highly important results found in Gruenewald et al.'s (2013) study will lead to a greater comparative examination of these issues across ideological domains and geographic boundaries.

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Informing Lone-Offender Investigations

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In their article, “Distinguishing ‘loner’ attacks from other domestic extremist violence: A comparison of far-right homicide incident and offender characteristics,” Gruenewald, Chermak, and Freilich (2013, this issue) make an important contribution and raise some intriguing questions about understanding and preventing acts of lone-offender terrorism. I would like to focus on three factors: the nature of “loner” attacks, the role of “radicalization,” and the role of mental illnesses.

Nature of “Loner” Terrorism and Attacks

Deciding what should qualify as a “loner” or “lone-offender” attack is more complicated than it might first seem. A range of definitions has emerged (Borum, Fein, and Vossekuil, 2012; COT, 2007; Pantucci, 2011; Schmid and Jongman, 1988; van der Heide, 2009). Some definitions indicate the attacker must act alone; others allow for an accomplice. Some completely exclude cases in which there is any evidence of contact with an extremist group. Still others exclude them only when the attack is “group-involved.” Some definitions stick to the narrow, traditional requirement of political/social/ideological motivations, whereas others allow for a fuzzy blend of personal and ideological motivations.

Terrorism has always been difficult to define, in part, because the definition is dynamic (Ganor, 2002).¹ That Gruenewald et al. (2013) point to “school shooters” as a possible point of comparison exemplifies a potential shift in the boundaries of what is publicly regarded as “terrorism,” especially among solo offenders. Historically in defining terrorism, establishing that the act was committed to instill fear in a broader population in order to further a political, social, or religious cause has been an essential element (Schmid and Jongman, 1988). Numerous cases exist, however, of targeted violence where the attacker

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1. By 1990, there were already more than 100 different published definitions of terrorism, so I will not attempt to resolve that issue here.

clearly intended to cause fear, intimidation, and terror, but the question of whether the act was committed primarily or solely “to further a political, social, or religious cause” or to influence the policy or conduct of a government is, at least, ambiguous (Bjelopera, Bagalman, Caldwell, Finklea, and McCallion, 2013; Bowers, Holmes, and Rhom, 2010; Cantor, Mullen, and Alpers, 2000; Fox and Levin, 2003, 2005; Lester, 2002, 2004).²

As Gruenewald et al.’s (2013) analysis suggests, to understand more clearly the nature of “loner attacks,” researchers have compared different types of attackers, including but not limited to, those traditionally regarded as terrorists. Some compare solo with group offenses and offenders. Gruenewald et al.’s analysis, for example, compared homicides by far-right extremist “loners” with killings involving far-right groups. Other investigations have compared different “types” of targeted violence by lone offenders. McCauley, Moskalenko, and Van Son (2013) recently compared characteristics of school attackers with characteristics of assassins. Finally, certain mass or spree murders committed by lone offenders, although they may or may not be distinctly “political,” have sometimes assumed the character of terrorism (Bowers et al., 2010; Harrison and Bowers, 2010; Knoll, 2010a, 2010b; Liwerant, 2007; Mullen, 2004).³

Does the definition of lone-offender terrorism really matter? Research applications aside, definitions probably matter only to the extent that they facilitate or obscure effective policies or practices. Very few “pure” cases of any type exist. So, instead of debating definitions, it might be more useful to consider the key areas of agreement and distinction and to view them along a continuum. Analyzing cases by their features, rather than by their types, might better aid the investigative process, particularly if each dimension is linked to a key facet of the attack and tracked across the spectrum of attack-related activity from idea to action (Borum et al., 2012).

In a previous study, my colleagues and I proposed three possible dimensions for this type of analysis: loneness, direction, and motivation (Borum et al., 2012). *Loneness* describes the extent to which the offender/attacker initiated, planned, prepared for, and executed the attack without assistance from any other person. It is the dimension of planning and acting alone, characterizing the *independence of activity*. This dimension would include the nature and degree of the suspect’s contacts with other extremists or accomplices, as well as others’ “roles,” and the nature and degree of their involvement with the suspect or with the attack. Support from others might include both material (typically involving goods or services) and expressive (typically involving social or emotional transactions that facilitate or amplify a permissive environment) types.

2. See, for example, 50 U.S.C. 36 § 1801(c).

3. No clear, consensus-based distinction exists between mass and spree murder. Spree murder is generally defined as two or more murders committed by an offender or offenders, without a cooling-off period, and mass murder as four or more murders occurring during the same incident (usually in a single location), with no distinctive time period between the killings (see also Morton and Hilts, 2005).

Direction, the second dimension, refers to the nature and extent of an attacker's independence and *autonomy in all decisions* across the spectrum of attack-related activity from idea to action. It describes not only influences, but also the extent to which issues of whether, whom, when, or how to attack were "directed" by others.

Finally, *motivation* describes the extent to which the attack is significantly driven by a political, social, or ideologically based grievance, not solely by revenge or some other personal motive. Motivation is of interest, in part, because a subject's motives for an attack are usually related to the target he or she selects, and it is possibly the most difficult of the three dimensions to discern (Artiga, n.d.). As COT (2007) noted, "[a]ssigning purposes and motivations to individual acts of terror is inherently subjective and open to considerable interpretation."

Using a dimensional approach, investigators and analysts do not have to be distracted by the question of whether some concerning behavior is or is not specifically part of a "lone-offender" attack. Instead, they can focus on the degree of independence in the suspect's attack-related planning and preparation, the degree of autonomy and external influence in all attack-related decision making, and the clarity or complexity of the suspect's purpose, or what he or she hopes to achieve with the attack.

Role of Radicalization

Lone-offender terrorists often are considered to be "self-radicalized extremists." But not all of these attackers are driven primarily by extremist ideologies and even fewer of them are "radicalized" in any traditional sense.

"Radicalization" is a misleading term to describe the process of becoming involved in terrorism (Githens-Mazer, 2012). Radicalizing connotes a transformative process of change by which people adopt an extreme, violent ideology—and that ideology ultimately leads them to violent action (Bhui, Dinos, and Jones, 2012). But it is clear that many who commit violence in the name of an ideology are neither devout nor highly knowledgeable about the doctrine and that they have complex and diverse sets of motivations and reasons for their activity (Borum, 2011a, 2011b, 2011c; King and Taylor, 2011).

Seeking satisfying answers to why a person engages in terrorism and what causes his or her action sometimes leads to overly simplistic explanations (Bartlett and Miller, 2012; Borum, 2011b; Githens-Mazer, 2012; Silke, 2008). When mass casualty violence occurs, because we assume terrorist-like acts to be politically motivated, we are poised to look for evidence of some kind of extremist ideas, associations, or beliefs.⁴ When that evidence appears, the political connection becomes the master explanation. We easily assume the political ideas caused the action. The truth is typically more complicated. Neither "radicalization" nor grievances alone are typically sufficient to cause an individual to engage in terrorism (Bartlett and Miller, 2012; Horgan, 2008).

4. To include political, religious, and social ideological motivations.

Fanatically embracing an ideology is neither a proxy for, nor a necessary precursor to, terrorism (Bartlett and Miller, 2012; Borum, 2011b; Githens-Mazer, 2012). Conflating the two concepts undermines our ability to counter either of them effectively. People become involved in terrorism and violent extremist activity in variety of ways, at different points in time, and perhaps in different contexts (Bokhari, Hegghammer, Lia, Nesser, and Tønnessen, 2006; Friedland, 1992; Horgan, 2008; see Borum, 2011a, 2011b, 2011c, for reviews). Radicalizing by developing or adopting extremist beliefs that justify violence is one possible pathway into terrorism involvement, but it is certainly not the only one.

The relationship between ideas or ideologies and behavior moves in both directions. Some people attach to a grievance because they adhere to a particular ideology, but others gravitate toward an ideology because they hold a particular grievance. The same is true for group affiliation. Some join a group because they support a shared ideology, but others develop an ideological commitment because of their group affiliation. The strength of a person's conviction and commitment to a cause may precede his or her willingness to participate in violence, but participating in violence may also strengthen a person's conviction and commitment to a cause. This complexity explains, in part, why terrorists generally, or lone-offender terrorists specifically, do not share a common a common profile (Borum, 2011b).

Assuming that radicalization is the key to understanding and predicting terrorism is a grave misapprehension (Bartlett and Miller, 2012; Borum, 2011b; Githens-Mazer, 2012). Investigators must be mindful that terrorism does not always follow a linear process where a vulnerable person is inducted into a particular ideology, and adherence to those ideas escalates until the individual inevitably is driven to commit acts of violence. Sometimes terrorism evolves that way, but not often enough, perhaps, even to be considered "typical."

Role of Mental Illnesses

One of the most prominent findings from Gruenewald et al.'s (2013) study is that "mental illness" was one of only a handful of factors that reliably distinguished lone offenders from other extremist homicide offenders. Forty years of terrorism research—focusing mostly on members of organized terrorist groups—firmly debunked the notion that only "crazy" people engage in terrorism and was nearly unanimous in its conclusion that mental illness is typically *not* a major cause of terrorist behavior (Borum, 2004; Horgan, 2008; Ruby, 2002; Victoroff, 2005). Preliminary evidence suggests, however, that, at least relative to other terrorists, solo attackers seem to have psychological problems more commonly.

Gruenewald et al.'s (2013) results are consistent with those of other researchers, finding that mental health issues often occur more prominently among lone offenders than among other terrorists (COT, 2007; Fein and Vossekuil, 1999; Gill, Horgan, and Deckert, 2013; Spaaij, 2010). Based on news reports and other open-source documents, for example, Gill et al. (2013) found that nearly one third (31%) of the 119 lone-actor terrorists they studied had a history of mental health problems. A systematic study of the thinking and behavior

of all 83 individuals known to have attacked, or approached to attack, a prominent public official or public figure in the United States since 1949 (Fein and Vossekui, 1999) found nearly two thirds (61%) had been evaluated or treated by a mental health professional and almost half (44%) had a history of serious depression or despair. More than 40% (43%) were known to be delusional at the time of the principal attack/approach incident, and one in five had a history of auditory hallucinations.

Psychiatrist David V. James and his colleagues (2007) estimated that about half of the 24 people who attacked elected politicians in Western Europe “were pursuing (to an irrational degree) an agenda of an idiosyncratic nature, usually but not always delusional in content” (p. 339). They also estimated that nearly half (48%) of attackers of reigning monarchs or members of their immediate families throughout history (between 1778 and 1994) experienced delusions or hallucinations around the time of their attack (James et al., 2008). More recently, in 2012, reporters Mark Follman, Gavin Aronsen, and Deanna Pan (2012) from *Mother Jones* magazine reviewed open-source information from 63 firearm-related mass murders (all by lone shooters) occurring in the United States since 1982 and found evidence of mental health problems in two thirds (65%) of the cases.⁵

These studies have suggested that it is not unlikely that investigators and analysts may find evidence of psychological problems when investigating possible lone-offender attacks. Here is the potential hazard: If the subject of an investigation can be or has been given some diagnostic label, then there is a common tendency to regard that label or disorder as a master explanation for the subject’s thinking, motives, and behavior. It is not.

Even more problematic is the assumption that having a mental disorder or mental illness necessarily makes a subject completely irrational and incapable of planned or self-interested behavior. People with mental illnesses and personality disorders, however, often can plan and execute bad behaviors just as well as those who do not have a diagnosis (Fein and Vossekui, 1999). An investigator or practitioner should not focus on categorical or diagnostic judgments. Current research on psychopathology has been converging around the idea that adaptive and maladaptive psychological processes exist on a continuum and that a bright line distinction often does not exist between what is normal and what is disordered.

Investigators and analysts should seek to understand the backgrounds, key influences on, thinking, and behaviors of “terrorists.” Knowing something about psychological abnormality, in some circumstances, may be useful for developing that understanding, but it does not substitute for it.

Several researchers have noted that whether a lone offender is *organized* may be more important than any mental disorder that an offender may have. Fein and Vossekui (1999), for example, pointed out that from an operational, protective perspective, a potential

5. In seven other cases, the evidence of mental disorder was unclear.

assassin's degree of organization seems more significant than whether he has been diagnosed with, or suffered from, a mental disorder.

When assessing a particular case, it might be useful to focus on specific functions/processes rather than diagnoses. For an operational assessment, the key function is the subject's ability to engage in goal-directed behavior and to act on his intentions. The cognitive organizational skills necessary for goal-directed behavior involve *thinking logically* (i.e., that anticipated consequences reasonably follow from anticipated action); *coherence* (i.e., the ability to connect together different ideas and elements of thought to formulate an overarching concept or plan); *consistency* (i.e., that the assumptions, premises, and anticipated actions are "internally consistent"—that they do not conflict or directly contradict one another); and finally, *control* (i.e., capacity for self-regulation to monitor, inhibit, and intentionally execute specific cognitive, emotional, and behavioral functions).

Policy Implications and Conclusions

This essay so far has focused on how emerging research might inform investigations, but there are implications for policy makers as well. One of the most of important of these is to understand that countering "radicalization" may not substantially reduce one-offender terrorism. Both may be important problems, but they do not always travel together. People with radical ideas (even ideas endorsing violence) typically do not engage in terrorism, and lone offenders who engage in terrorism or mass violence often are not driven primarily by deep ideological beliefs. Despite public reactions to, and media characterizations of, lone-offender attacks, policies should rely on established connections between policy targets and the intended outcomes.

A second policy-relevant implication is a need to generate a quicker, more effective plan to understand and mobilize people who may know (at least partially) of an attacker's ideas, intent, or plan. Gruenewald et al. (2013) touch on this point in their recommendation to sharpen threat assessment. In many cases regarded as "lone-offender attacks," the attacker is not completely invisible to the social world. The independence of his or her thinking, planning, and preparation often varies, and the attacker's autonomy in making attack-related decisions is often a matter of degree. As we have learned from studying other forms of targeted violence, attackers often communicate their intent (although they may not threaten the target directly) or engage in observable attack-related behaviors before the attack itself (Fein and Vossekuil, 1999; Vossekuil, Fein, Reddy, Borum, and Modzeleski, 2002). Sometimes, the "bystanders" who come into contact with the attacker are strangers, but sometimes they are friends or family members. Those with kinship bonds may not approve at all of the attacker's intent, but they may feel restrained from acting because of love and loyalty or concern about the consequences.

Finding ways to encourage concerned people to come forward and to facilitate reporting will be critical to long-term prevention efforts. No quick fix is available, but research on reporting systems has shown that it helps to have multiple channels and options for reporting

unacceptable behavior, including anonymous reporting mechanisms (Colvin, 2011). As a general guideline, bystanders are more likely to report concerning behaviors when they perceive the reporting mechanism to be *accessible, safe, and credible* (Rowe, Wilcox, and Gadlin, 2009). Reporting procedures should be clear. Bystanders should know who and how to contact and what information they should be prepared to provide. Bystanders should feel safe when reporting, even if that means allowing them complete anonymity. When people come forward, officials can commend the bystander publicly (even if not by name) for “doing the right thing.” Officials might be cautious, however, about referring to the act of reporting as “brave” or “courageous,” which might imply that the action was dangerous and unsafe. Finally, bystanders should be assured that their reports will be treated seriously and that any official action will be thoughtful and measured. They should feel assured that officials will competently handle their report. Ultimately, credibility may need to be earned over time (Rowe et al., 2009).

Gruenewald et al.’s (2013) thoughtful article adds another arrow to the quiver of knowledge about lone-offender terrorism, and yet many questions remain. Although describing various samples seems like a reasonable starting point, it is important also to pursue questions that have operational relevance—those that can influence the thinking and action of organizations and individuals with responsibility to protect and prevent. That requires that research questions, design, and analyses be informed by a thorough understanding of the key issues and tasks that end users (e.g., investigators and analysts) are required to address and the process by which their inquiries are conducted (Borum, Fein, Vossekuil, Gelles, and Shumate, 2004).

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Statute Cited

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EDITORIAL INTRODUCTION

DAY REPORTING CENTERS FOR PAROLEES

Day Reporting Centers

The Challenges of Effective Correctional Evaluations

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Mass incarceration remains a central social problem. The U.S. incarceration rate has grown precipitously over the past three decades, with more than 1 in 100 adults currently in prison or jail (Pew Center on the States, 2008). Early studies on mass incarceration had been centered on the “front-end” causes (e.g., sentencing policies) of increasing prison populations. New work has emerged that highlights the central role of community correctional policies, namely, parole revocations, or “back-end” practices, in understanding variation in imprisonment rates and recidivism over time (Lin, Grattet, and Petersilia, 2010; Pew Center on the States, 2008).

Despite an emerging best practices literature in community corrections (Lowenkamp, Flores, Holsinger, Makarios, and Latessa, 2010; Lowenkamp, Latessa, and Smith, 2006), much remains to be learned about the most promising interventions for individuals on parole. This type of work is particularly important given that recent research by the Pew Center on the States (2011) suggests that recidivism rates have remained stable over the past decade, despite the development of several comprehensive reentry programs.

The work presented by Boyle, Ragusa-Salerno, Lanterman, and Marcus (2013, this issue) is an important contribution to our understanding of effective correctional practices. Boyle et al. used a randomized control trial (RCT) to consider the efficacy of day reporting centers (DRCs) for parole violators in New Jersey. This research adds to the scant literature on the efficacy of DRC programming and is the first published RCT of an intervention of this type. The results of the study contradict initial expectations. Compared with individuals on traditional parole supervision, men who were referred to the DRC did not have significantly better outcomes. In fact, men who were assigned to the DRC program were more likely to be arrested and convicted for a new offense in the 6-month follow-up period.

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Several factors may account for the contradictory results. As with any programmatic intervention, the quality of implementation can substantially alter outcomes. All three policy essay authors raise concerns about program quality and possible variation in execution of programming across sites. Although Boyle et al. (2013) did observe program implementation, a stand-alone program evaluation was not conducted. Duwe's (2013, this issue) essay is particularly instructive. He characterizes the current evaluation, and most outcome evaluations, as black box in nature. Although informative, this work does not describe why and how programs are successful. Duwe, based on his experiences in Minnesota, provides several examples of how "gray box" process evaluations can provide better data to enhance new and existing reentry services. He argues that these types of evaluations are needed, even if the program is deemed effective within the traditional outcome evaluation framework. Ostermann (2013, this issue), in his policy essay, further illustrates the role of program quality in correctional outcomes. He provides a particularly detailed calculation of the possible counterfactuals of program outcomes based on different levels of implementation. Ostermann's call for more program evaluations and a broader use of the Correctional Program Checklist is particularly timely.

In addition, the nature and duration of services provided at the DRC could have altered outcomes. The DRC was designed as a sanction for parole violations. Steiner and Butler (2013, in this issue) argue that moving the intervention earlier in the correctional phase, as an alternative to incarceration, may be more effective. They also provide important insight on best practices for correctional implementation and argue for the continued intervention with high-risk clients. Ostermann (2013) echoes this sentiment.

In addition, the New Jersey DRC includes educational programming as a part of the program model. Most work of this type has considered DRCs as alternatives to incarceration or as part of pretrial detention. In his policy essay, Duwe (2013) summarizes recent research on the provision of employment services for parolees and provides details for enhancing the DRC program model. In particular, Duwe suggests ways in which programs of this type can reduce negative peer interaction and enhance positive social support. Overall, one of the greatest challenges for evaluating programs of this type is understanding why this type of program does or does not work. The supervision-centered model of corrections has failed before; hence, it is imperative to unpack the type of therapeutic interventions that work best in the DRC program environment.

The authors and policy essays call for additional and rigorous evaluations of day reporting centers and of community correctional programs in general. Although a clear consensus exists as to the appropriateness of experimental designs, the rigor of these models should not overshadow the continuing need for process evaluations of correctional interventions. It is equally important to understand why something works as it is to understand whether it works. Good program evaluations can provide the foundation for effective correctional practice and enhanced public policy. I disagree with Duwe that corrections have made little progress in the last decade, but I do agree that quality program evaluations are worth the

effort. This research should not be considered a condemnation of the DRP model. Instead, the policy essays highlight the need to learn as much as possible about the mechanisms involved in making a successful transition from prison to the community.

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EXECUTIVE SUMMARY

DAY REPORTING CENTERS FOR PAROLEES

Overview of: “An Evaluation of Day Reporting Centers for Parolees: Outcomes of a Randomized Trial”

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Research Summary

The present study is an experimental evaluation of day reporting centers (DRCs) as an alternative to incarceration for medium- and high-risk parolees in New Jersey. Male parolees (N = 355) were randomly assigned to a DRC condition or regular parole supervision (the Control condition) for a period of 90 days. Short- and long-term outcomes were examined. The data show that DRC participants were more likely to be arrested and convicted for a new offense in the short term compared to the Control group. DRC participants' median time to new arrest was 99 days shorter than Control group parolees; however, this difference was not significant. No differences were found between the groups in the long term.

Policy Implications

Parolees assigned to a DRC fare as well, and in some instances worse, than parolees on regular parole supervision. Given the relative costs associated with each form of supervision, it is not advisable to use the DRC model as an alternative to incarceration for medium- and high-risk parolees.

Keywords

community corrections, day reporting centers, experimental evaluation, parole supervision, recidivism

RESEARCH ARTICLE

DAY REPORTING CENTERS FOR PAROLEES

An Evaluation of Day Reporting Centers for Parolees

Outcomes of a Randomized Trial

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During the period between 1982 and 2007, the number of Americans incarcerated in prisons and jails increased a staggering 274% (Pew Center on the States, 2009). The United States also witnessed a dramatic increase in the number of persons on community supervision during this time period (Pew Center on the States, 2009), largely because of the collective belief that community-based sanctions and supervision could alleviate prison overcrowding and increasing incarceration costs (Morris and Tonry, 1990; Petersilia, 1998; Wodahl, Ogle, and Heck, 2011). However, researchers have determined that the increase in the community-supervised population is correlated with a subsequent increase in revocation rates (Hughes, Wilson, and Beck, 2001; Travis and Lawrence, 2002), thus producing evidence that offenders revoked from community supervision comprise a significant portion of the incarcerated population (Wodahl

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et al., 2011). Recent statistics reveal that the percentage of parolees reincarcerated after release currently stands at 32% (Maruschak and Parks, 2012), and although these rates have decreased since 2008, it is apparent that community reentry continues to remain a difficult transition for offenders. As such, state criminal justice systems are faced with a difficult challenge: to obtain a decrease in the inmate population and an increase in rehabilitation efforts for community-supervised offenders while operating within fiscal limitations.

Alternatives to incarceration have become a popular approach to deal with such a challenge and for good reason: They promise to reduce offender incarceration and recidivism while maintaining public safety and limiting state expenditures (Clear and Austin, 2009; King, 2009; Raphael and Stoll, 2009; Useem and Piehl, 2008). Although many types of alternatives to incarceration exist (e.g., house arrest, halfway houses, electronic monitoring, drug courts, diversion, and restorative justice), one particular alternative to incarceration that has gained notable attention over the last two decades is the day reporting center. Day reporting centers (DRCs) are facilities that offer offenders rehabilitative programming and daily supervision. Offenders assigned to DRCs generally report during daytime hours and return home after daily programming is complete. Unlike other alternatives to incarceration, DRCs provide offenders with practical reentry programming while providing state criminal justice systems the opportunity to monitor and supervise offenders as they remain living within the community. Thus, DRCs are perceived to be a cost-effective way to manage offenders who are supervised in the community.

Whereas many studies exist on the utility of DRCs as an alternative to incarceration, little research has examined the use of such programming for parolees. Specifically, there is a dearth of research that has examined whether parolees who attend DRCs are less likely to reoffend than parolees who do not attend DRCs, or whether DRCs are more cost-effective than traditional parole for this population. In this article, we present the findings from an experimental evaluation and attempt to provide answers to these questions and others for a sample of offenders under parole supervision in New Jersey.

Background

DRCs in the United States

DRCs were first introduced in Great Britain in the late 1960s (Craddock and Graham, 2002) and were later adopted in the United States in the mid-1980s when Connecticut and Massachusetts opened pilot programs (Parent and Corbett, 1996). The DRC concept quickly gained popularity in the United States; in 1990, 13 DRCs were open (mainly operating out of Massachusetts and Connecticut [Martin, Lurigio, and Olson, 2003]), and within 4 years, that number had grown to 114 in operation across 22 states (Parent and Corbett, 1996).

New Jersey was not immune to issues related to a burgeoning correctional population. Although the state's incarceration and community supervision rates did not quite reach

the national levels between 1982 and 2007 (the adult incarceration rate in New Jersey increased 192% while its community supervision population rate rose 141% [Pew Center on the States, 2009]), the 3-year return-to-prison rate for inmates released in 2004 was a staggering 43% (Pew Center on the States, 2011). New Jersey, like many other states, has used the DRC model extensively as an alternative to incarceration for parolees since its implementation by the state in the 2000s (Office of Justice Programs, n.d.).¹

Given the large number of DRCs currently open nationwide, there is no single definition of what constitutes a DRC and no uniform name for these types of programs; other names for DRCs have included community resource centers, day treatment centers, day incarceration centers, and restorative justice centers (Craddock, 2004). Although these programs may be called by different names, they share certain similar core components (e.g., requirement to report each day for a specified period of time). DRCs also differ in that they can serve many offender populations, and offenders can be sentenced to a DRC for a variety of reasons, including a pretrial detention sentence, a direct sentence, as a condition of probation, an intermediate punishment, or as a halfway back sanction for probation or parole violators (Martin et al., 2003). Nevertheless, such programs will herein be referred to as DRCs.

The reentry literature is replete with examples of the difficulties offenders face after release from prison. Namely, these offenders are largely uneducated, unskilled, and cannot perform many of the simple tasks of daily life (e.g., creating a savings account and acquiring a credit card [Koenig, 2007]). Additionally troubling is the large number of offenders who leave prison with no savings and little to no employment prospects (Petersilia, 2001). Day reporting centers, although typically used as an alternative to incarceration, address these issues while providing surveillance to offenders who are living within the community. In this way, DRCs are aimed at the promotion of successful and sustainable reentry while protecting the safety of the public. In terms of surveillance, many DRCs require that their clients report daily, check in with counselors, submit to random drug tests, and abide by other conditions that ensure the management and supervision of these offenders despite their in-community status. To aid in reentry and reintegration, treatment programming, designed for each participant specifically through the process of an intake risk/needs assessment, can include educational and/or vocational training, job placement services, alcohol and drug abuse education and treatment, and life-skills training, among others. Although researchers have found promise in reentry programming that implemented or expanded the use of vocational training and educational programming (Seiter and Kadela, 2003), the popularity of DRCs as an alternative to incarceration warrants an exploration into the effectiveness of DRCs in reducing recidivism for offenders.

1. In New Jersey, DRCs are currently referred to as community resource centers. Previously, New Jersey called these centers DRCs, but the name was changed after the present study began. These facilities will herein be referred to as DRCs.

DRC Evaluation Research

While DRCs can provide community-based services and programming to multiple offender populations, research on the ability of these programs to reduce recidivism and increase positive outcomes for offenders has focused mainly on the outcomes of adult probationers (Brunet, 2002; Champion, Harvey, and Schanz, 2011; Craddock, 2004, 2009; Craddock and Graham, 2002; Marciniak, 2000) and offenders during the pretrial phase (Kim, Joo, and McCarty, 2008; Kim, Spohn, and Foxall, 2007; Martin et al., 2003; McBride and Vanderwaal, 1997; Roy and Grimes, 2002). These studies generally suggest cost-savings to states through the use of DRCs instead of standard incarceration (e.g., Craddock, 2004), but results regarding the effectiveness of these facilities to reduce recidivism in these populations are mixed, and none of these studies employed an experimental design.

Far less is known about the utility of DRCs for reducing recidivism and producing positive outcomes among parolees. To date, there has only been one peer-reviewed study testing the effectiveness of DRCs for the parole population (i.e., Ostermann, 2009). Although Ostermann (2009) reported positive outcomes of DRC programming (e.g., lower rearrest, reconviction, and reincarceration rates) when compared with other offender groups (most notably offenders released on unconditional discharge), this study used a quasi-experimental design consisting of a review of existing records using nonequivalent comparison groups. There is a solid argument for using experimental designs for program evaluations, and many researchers have asserted that most evaluations found within the literature have been plagued by less-than-rigorous methods (see Palmer and Petrosino, 2003; Sherman, 2000; Sherman et al., 1998; Weisburd, 2000; Zhang and Zhang, 2005). These methods can lead to erroneous and biased results. For example, in their systematic evaluation of crime and justice intervention studies, Weisburd, Lum, and Petrosino (2001) found that the weaker the research design of a study, the greater the likelihood the results would support the treatment condition, as an overestimation of program outcomes can occur. As such, Weisburd (2003: 343) asserted there is a “clear moral imperative” for the use of randomized experiments in crime and justice research, and any conclusions drawn about DRC program effectiveness from these prior studies are potentially biased. The current study is the only randomized-controlled experiment for any DRC offender population.

The Present Study

The present study is an experimental evaluation of the effectiveness of DRCs versus traditional parole supervision in New Jersey. Participants include parolees in danger of parole revocation or increased sanctions as a result of technical violations. Five parole offices and the seven DRCs that provide services to those offices in urban areas of the state were chosen as study sites.² Four of the seven DRCs are national providers of community corrections

2. Site selection was based on proximity to the research team to use limited study resources most efficiently while maximizing potential participant recruitment and ultimate sample size.

programming (i.e., they provide such services in other states beyond New Jersey). All DRCs are run by private agencies that contract with the New Jersey State Parole Board (NJSPB) to provide services exclusively to parolees. These DRCs are contractually required to provide services to all eligible parolees referred to the agencies regardless of criminal history.³ DRCs must also comply with guidelines for programming and service provision established by the NJSPB.

We examined outcomes for parolees randomly assigned using a computer-based system (described in detail in the Methods section) to either a DRC condition or traditional parole supervision (known as Phase I supervision) for a study period of 90 days. Specifically, we tested the following research questions:

1. Are parolees assigned to DRCs more likely to complete the study condition successfully when compared with parolees on Phase I supervision?
 - a. Does the time to study condition failure differ between the two conditions?
2. Are parolees assigned to DRCs less likely to reoffend with a new crime than parolees under Phase I supervision?
 - a. For those parolees who reoffend with a new crime, does the time to arrest differ between the two conditions?

To answer these questions, we present outcomes for participant study condition completion, arrests and convictions for parole violations, and arrests and convictions for new offenses. Outcomes are presented for the 90-day study period, as well as the short term (i.e., 91 days to 6 months [270 days] post enrollment date) and long term (i.e., 6 months one day [271 days] to 18 months [630 days] post enrollment date).

Parole Supervision in New Jersey

The NJSPB is the lead reentry agency for the state of New Jersey and is a separate entity from the state's Department of Corrections. The NJSPB is responsible for the supervision of more than 15,000 parolees across the state (New Jersey State Parole Board, 2009). The overarching mission of the NJSPB is to promote ex-prisoners' return to society as law-abiding citizens. To accomplish this objective, the NJSPB uses a four-phase supervision system in which parolees cycle among the four phases depending on their parole behaviors: Phase I (assessment), Phase II (stabilization), Phase III (maintenance), and Phase IV (advanced). All parolees enter parole on a Phase I caseload, which has the highest level of supervision, and they attempt to move to lower levels of supervision, with Phase IV being the least restrictive. Whereas positive behaviors (e.g., completing substance abuse treatment or obtaining employment) are rewarded by the parolee's move to a lower supervision level, negative behaviors (e.g., substance

3. New Jersey's DRCs serve parolees with criminal histories ranging from property offenses to first degree murder, and they do not deny services to arsonists or sex offenders. However, sex offenders could not participate in the current study as they are handled by a separate NJSPB office and are not included within the general population of parolees.

abuse relapse or curfew violation) result in the parolee's movement to a higher supervision level or, if the parolee is currently on Phase I supervision, to additional restrictive sanctions.

Phase I parole supervision is the NJSPB's version of intensive supervision parole in that parolees on Phase I have contact standards that require more frequent contacts with parole officers and random drug testing than the other phase caseloads. Parolees typically remain on Phase I supervision for a period of 90 days and must abide by the following conditions: must have two face-to-face contacts with a parole officer every 30 days, must have one positive home visit every 30 days (i.e., the parole officer must visit the residence while the parolee is home and verify that the parolee resides at the address on record), and must have one random drug test every 30 days. New Jersey criminal record checks and a check of the national criminal history database are conducted at least once per month. Parolees on Phase I may also be given additional conditions to complete while under supervision based on their risks/needs or as a sanction for being in violation of their supervision. Some of the special conditions added to Phase I can include curfew, educational programs (e.g., General Education Development diploma or college courses), job training programs, outpatient drug/alcohol counseling, outpatient mental health counseling, anger management, electronic monitoring, halfway back supervision, or day reporting center participation. Parole officers can assign multiple conditions for a parolee at any given time.

Day reporting centers. The standard length of program participation in these DRCs is 90 days. Parolees enrolled in the programs are expected to attend programming every weekday and submit to regular drug testing as monitored by DRC staff. The DRCs use a three-phase system whereby parolees are rewarded by moving forward in the phases when they accomplish program objectives. Phase I is the orientation phase and lasts for at least 14 days. During this phase, parolees participate in program orientation sessions and life-skills training based on cognitive-behavioral principles and undergo several assessments that are intended to be used as treatment planning tools. Phase II is the treatment phase. A parolee is considered to be in Phase II as long as the parolee is attending the DRC but not gainfully employed or enrolled in a full-time educational program. Parolees in this phase participate in job training as well as other programming consistent with the treatment plan developed during Phase I. This may include individual counseling, 12-step groups, and peer-support groups. The final phase, Phase III, is achieved when the parolee obtains verified employment or attends an approved educational or vocational training program. The goal of Phase III is to aid the parolee in his/her reentry and to create a relapse prevention plan. Parolees in this stage are required to check in with the program when they are not at work or school and must meet regularly with their parole officers. During this time, parolees will still attend individual counseling sessions and participate in assessments geared toward assisting with reentry planning.

The NJSPB continues to be involved with parolees while they are attending the DRC. In addition to the parole supervision standards outlined in the previous section, parole officers must fulfill several contact standards if they have a parolee assigned to the DRC

on their caseload. These standards include conducting a positive home visit during the first month of DRC enrollment, with additional home visits completed if a parolee has 3 successive days of unexcused absences from a DRC or goes missing from parole supervision. Parole officers also must verify a parolee's employment on a weekly basis if the parolee obtains a job. New Jersey criminal record checks and a check of the national criminal history database are conducted at least once per month during a parolee's attendance at a DRC. Finally, parole officers are required to administer random drug tests for detection of narcotic/alcohol use in addition to the tests administered by the DRC staff. Thus, although these parolees are attending the DRC, they are still mandated to adhere to the terms of their Phase I parole supervision as outlined by the NJSPB.

Methods

Site Visits

A project team led by the first author conducted site visits to each DRC and parole office involved in the study. We interviewed the chief administrator of each site and key personnel about program intake procedures, content of programming, and implementation. Program materials were obtained from each DRC. A psychosocial assessment, including a strengths and needs assessment, is conducted at each DRC on parolee intake to the program. In addition, the Level of Service Inventory-Revised (LSI-R; Andrews and Bonta, 1995) is administered at each facility upon intake. The structure and content of the programming is mandated by the NJSPB; however, the intake assessment (with the exception of the LSI-R) varies in specifics across sites. That is, although the content areas assessed are the same, the actual intake protocol may contain different formatting and/or assessment instruments. In addition, whereas the program materials and curricula employed by the DRCs are required to address certain specified topic areas, sites are not mandated to employ any specific program or curriculum. All DRCs had adequate space designated for programming, and all centers provided computer facilities where participants could work on job applications and search for employment.

Participants

Recruitment and enrollment. Participant recruitment ran from August 1, 2007 through January 7, 2009. To be eligible for study inclusion, parolees had to violate a condition of Phase I or Phase II supervision such that increased supervision was warranted, be unemployed, have at least 3 months remaining in the parole term (so that they would be capable of completing the 90-day study condition period), and be able to communicate in English for treatment participation purposes.⁴

4. Because of similar contact standards between Phase I and Phase II parolees, parolees who violated a condition of parole while on Phase II supervision were eligible for enrollment so as to increase the potential sample size of this study.

Assistant district parolee supervisors (ADPSs) at the five participating parole district offices were responsible for identifying parolees who violated conditions of their parole and were eligible for additional sanctions based on parole-mandated 3-month file reviews and adjustment sessions.⁵ When an ADPS identified an eligible parolee, the parolee's unique prisoner number was entered into a secure web-based randomization program that assigned the parolee to either the DRC or the Phase I condition. In some instances, parolees assigned to the Phase I group were also assigned one or more special conditions, consistent with NJSPB guidelines. These conditions could include curfew, educational programming, vocational training, outpatient drug/alcohol counseling, outpatient mental health counseling, and anger management. For the purposes of this study, electronic monitoring and halfway back supervision were not allowed as special conditions for study participants, as they are handled by a separate office within NJSPB. Next, the ADPS explained the research study to the parolee and administered consent without disclosing the condition assignment. Parolees who consented to participate were then officially enrolled in the study; parolees who refused consent were referred to the randomly assigned condition, and no participation or outcome data were collected.⁶ Thus, parolees were randomly assigned to either the experimental or the control group, and this assignment was not related to whether they ultimately consented to participate in the study. This eliminated any bias that might have occurred from a parolee's preference for one or the other of the study conditions.

Referrals to community-based treatment (beyond the required DRC programming) were similar in both study groups. As a result of record limitations, we cannot know for sure which treatment programs were actually attended by study participants; however, we have counts of the types of programs to which they were referred. For example, 61% of DRC participants and 62% of Phase I parolees were referred to substance abuse counseling; 13% of DRC and 12% of Phase I parolees were referred to educational programs; and 11% and 9%, respectively, were referred to mental health counseling. Participants from any given parole office and its corresponding DRC would have been referred to the same treatment providers for substance abuse or mental health counseling as there are specified providers for a given geographic location.

Study sample. The demographic and risk characteristics of the study groups are displayed in Table 1. The original study sample included 355 male parolees and 47 female parolees. The random assignment procedures used resulted in study groups that were split almost evenly between the DRC ($n = 198$) and Phase I ($n = 204$) conditions. For the purpose of the current analysis, females have been excluded. Therefore, the total sample is 355 with just under half ($n = 170$) in the DRC condition and the remaining sample

5. Adjustment sessions are meetings of the ADPS, the parole officer, and the parolee to address violating behavior and impose additional sanctions.

6. However, demographic and criminal history data were collected to assess the similarity of the consenting participants and those who refused participation.

TABLE 1

**Demographic, Criminal History, and Risk Characteristics by Study Condition
for Study Participants (*N* = 355)**

Demographics	DRC (<i>n</i> = 170)	Phase I (<i>n</i> = 185)
Mean Age (in years)	32.6 (9.2 <i>SD</i>)	32.8 (9.6 <i>SD</i>)
Race/Ethnicity		
African American	78.2%	80.5%
Latino/Hispanic	14.1%	13.5%
Caucasian	7.6%	5.9%
Offense of Conviction		
Violence and weapons	41.8%	36.8%
Drugs	40.6%	48.1%
Property and other offenses	17.6%	15.1%
Mean Number of Prior Adult Arrests	9.4 (7.0 <i>SD</i>)	9.2 (6.7 <i>SD</i>)
Mean Number of Prior Adult Convictions	9.1 (6.8 <i>SD</i>)	8.8 (6.9 <i>SD</i>)
Juvenile Criminal Record	36.5%	31.4%
Mean LSI-R Risk Score	24.4 (6.2 <i>SD</i>)	24.6 (6.1 <i>SD</i>)
Parole Phase Status Before Study Enrollment		
Phase I	72.4%	72.4%
Phase II	27.6%	27.6%

Note. No significant differences were found between the two conditions for any of these variables.
Abbreviation. *SD* = standard deviation.

(*n* = 185) in the Phase I group. This decision was made because researchers have concluded that female offenders, particularly those facing reentry, suffer from several issues that are different than male offenders (e.g., mental health problems, chronic and acute health issues, parenting and relationship concerns, poor educational and vocational training, and a history of violent behavior [Veysey, 2008]). Whereas male offenders may also experience these issues, research has shown that females tend to experience them at higher rates (Green, Miranda, Daroowalla, and Siddique, 2005; James and Glaze, 2006; Maruschak, 2006; Teplin, Abram, and McClelland, 1996). Additionally, research has shown that the pathways into and out of crime differ by gender (Bloom, Owen, and Covington, 2001; Covington, 2002; McIvor, Murray, and Jamieson, 2004) and that the roles and identities males and females take on after reentry are different (Herrschaft, Veysey, Tubman-Carbone, and Christian, 2009).

Statistical analyses reveal that the Phase I and DRC study groups are equivalent and independent *t*-tests and chi-square analyses reveal no significant differences between the groups in terms of demographic characteristics. Participants in both study groups were

33 years of age, on average. African Americans constituted the largest single racial/ethnic group, representing more than three quarters of each study group, followed by Hispanics and Caucasians. There were no Native American, Asian, or Pacific Islander participants in the sample.

Criminal history and participants' risk of recidivism were considered through the examination of participants' offense of conviction (i.e., the conviction that placed them on parole and, thus, eligible for study enrollment), number of prior adult arrests, number of prior adult convictions, scores on the LSI-R risk/needs assessment, and parole phase status prior to study enrollment. No significant differences for offense of conviction for DRC participants were found compared with Phase I parolees. The mean number of prior adult arrests was similar across conditions (DRC: mean = 9.4; Phase I: mean = 9.2), indicating no significant differences. The mean number of prior adult convictions also was comparable across conditions (DRC: mean = 9.1; Phase I: mean = 8.8). No significant differences were observed across conditions for the mean pre-enrollment LSI-R risk score (DRC: mean = 24.4; Phase I: mean = 24.6). The parolees who comprise the current study sample can generally be considered high-risk offenders. Andrews and Bonta (2003) reported a mean LSI-R score of 20.8 for males within a sample of adult community offenders in the United States, with scores of 0–7 classified as minimum risk, 8–15 as medium risk, and 16 or greater as maximum risk. Based on these mean scores and cutoff points, the offenders included within the current sample generally include offenders who can be deemed at a higher risk. Parolees in both conditions were overall more likely to be supervised under Phase I supervision prior to study enrollment.

Consent refusals. In addition to the study sample, 21 eligible parolees refused to participate in the study. This result represents a refusal rate of approximately 5%. To discern whether significant differences exist between those parolees who consented to participate in the study and those who refused, a random sample ($n = 21$) of the total study sample was generated using SPSS v.19 software (SPSS Corporation, Chicago, IL). The two groups were then compared on all demographic variables using independent t -tests and chi-square analyses. The results of these analyses reveal no significant differences between the random sample of parolees who consented and those who refused to participate in the study on demographic characteristics including age ($t_{(40)} = -.07, p = .94$), race/ethnicity (chi square₍₁₎ = 3.23, $p = .07$), offense of conviction (chi square₍₂₎ = .69, $p = .71$), mean number of prior arrests ($t_{(40)} = .41, p = .69$), mean number of prior convictions ($t_{(40)} = -.28, p = .78$), juvenile criminal history (chi square₍₁₎ = .38, $p = .54$), pre-enrollment LSI-R risk score ($t_{(34)} = -.71, p = .48$), and prior parole phase (chi square₍₂₎ = .11, $p = .74$).

Data Sources

Demographic data were collected from the participants' files at each respective parole district office at the time of enrollment. Supervision, service and treatment participation, drug test,

and employment data were collected from parole chronological notes and DRC files for the 90-day study period that the parolee was under DRC and/or parole supervision. Criminal history and recidivism information were collected from participants' computerized criminal history (CCH) reports and the Interstate Identification Index (III). New Jersey CCH reports are kept and compiled by the New Jersey State Police and are a record of every individual arrest, acquittal, conviction, sentence, parole violation, and violation of probation that occurs within the state of New Jersey. The III is a national criminal history that reports all arrests, acquittals, convictions, sentences, parole violations, and violations of probation that occur outside of New Jersey. CCH and III reports were available for all participants for the entire follow-up period regardless of parole supervision status.

Data Analysis

Outcome measures. The following variables are included as outcome measures in the current evaluation.

Study condition completion. This measure examines participants' adherence to their assigned condition. Study condition completion for DRC participants is defined as unsuccessful if a participant had a change in parole status or was removed from their assigned DRC condition for the following reasons: parole violation, new arrest, new conviction, or if a participant absconded from parole supervision at any time during the period, was placed on electronic monitoring (EM), or discharged from the DRC because of irregular attendance, programming nonparticipation, or program and/or parole noncompliance. For Phase I supervision parolees, study condition completion is defined as unsuccessful if a parolee had a change in parole status because of a parole violation, new arrest, or new conviction, or if the parolee absconded from parole supervision at any time during the period or was placed on EM.

Time to study condition failure. This measure examines the time to study condition failure during the 90-day study period. It is specifically defined as the number of days from the date of enrollment to the date of the participant's condition failure within the 90-day study period. The highest possible value of survival is 90 days, indicating that the participant did not fail the assigned condition.

Arrests during the 90-day study period. This measure includes arrests for both new offenses and parole violations during the 90-day study period. Data for this variable come from both the parole chronological notes and the CCH/III reports. It is coded as 0 = none, 1 = arrest for a new offense, and 2 = arrest for a parole violation only.

Arrests during the follow-up periods. This measure includes arrests for new offenses (i.e., excluding parole violations) that occurred during the short- and long-term follow-up periods. Parole violations that resulted in an arrest during the short- and long-term follow-up periods are not analyzed within the current study as parole attrition increased with time.⁷ This outcome is measured dichotomously, coded 0 = no and 1 = yes.

7. As a condition of study eligibility, participants were required only to have at least 3 months left on parole. As such, the number of participants under NJSPB supervision decreased significantly after the

Convictions during the 90-day study period. This measure includes convictions for both parole violations and new offenses subsequent to study enrollment as measured at the end of the 90-day study period and recorded in both the chronological notes and CCH/III reports. It is coded as 0 = none, 1 = conviction for a new offense, and 2 = conviction for a parole violation only.

Convictions during the follow-up periods. This measure includes convictions for new offenses (i.e., excluding parole violations) as measured at the end of the short- and long-term follow-up periods. It is measured dichotomously, coded 0 = no, and 1 = yes. Parole violations that resulted in a conviction during the short- and long-term follow-up periods are not analyzed within the current study as parole attrition increased with time.

Time to first arrest for a new offense. This measure examines the time to first arrest for a new offense (excluding parole violations) during the 90-day study and short- and long-term follow-up periods. It is specifically defined as the number of days from the date of enrollment to the date of the participant's first new arrest in the 21-month period.

Statistical methods. This study is a randomized-controlled trial and features an intent-to-treat analysis; all study subjects, regardless of whether they completed their assigned 90-day study condition, were included as part of their assigned treatment group for all statistical analyses. The use of an intent-to-treat design for this study allows for an evaluation of the DRC's real-world effectiveness that can be generalized to similar parole populations. The intent to treat design includes both completers and noncompleters in their original study groups as assigned by the randomization procedure for all study analyses. This provides information about how effectively the treatment conditions can manage and provide assistance to members of the study population as well as whether the treatments have an effect on the long-term treatment outcomes. It intentionally allows for providers to adjust treatment protocols and for subjects to discontinue treatment as does happen in real-world program implementation. Furthermore, the clinical effectiveness of treatment has been shown to be overstated if intent-to-treat analysis is not followed (Hollis and Campbell, 1999).

In a randomized-controlled trial, it is not necessary to control statistically for possible confounding risk factors when conducting the between-group comparisons if the randomization process is successful in creating two equivalent study groups as it was in the current study. Chi-square analyses were conducted to assess significant differences between the study groups on the outcome measures: study condition completion, arrest during the 90-day study period, arrest during the follow-up periods, conviction during the 90-day study period, and conviction during the follow-up period. If participants were incarcerated for more than half of each respective follow-up period and did not have an arrest or conviction on record, then they were excluded from the analyses for that period, as they could not commit

end of the 90-day study period, leaving us unable to analyze parole violations during the short- and long-term follow-up periods.

an offense. In addition, odds ratios were calculated to examine the relationships between the two study conditions and the outcome variables for those variables coded dichotomously (i.e., this excludes convictions and arrests during the 90-day period because of the additional categories for parole violations).

Survival analysis is used to examine the time-to-event data. The use of survival analysis strengthens the results as it allows for the inclusion of information from study participants who do not experience the event during the study period through the use of censoring (Kleinbaum and Klein, 2005). The term “survival analysis” comes from its use in studies of mortality; however, it can be used to examine all types of outcomes where the time from a starting point until the occurrence of the outcome is of interest. In the current study, survival analysis was used to examine *time to study condition failure* during the 90-day study condition period. It was also used to examine *time to first arrest for a new offense* during the 90-day study period and entire 18-month follow-up period (i.e., 21 months or 630 days total).⁸ Right censoring was used if an event did not occur within the study period (i.e., 90 days) and entire follow-up period (630 days total). To learn about the comparative probabilities of outcomes described earlier between the study groups at any particular time interval, Kaplan–Meier curves were created and examined (Bland and Altman, 1998). These curves provide a graphical depiction of the survival probabilities. The log-rank test, which has the same distribution as a chi-square test, is used to test the null hypothesis that the curves comparing the groups are the same. In addition, median days to outcome events are reported.

Results

90-Day Study Period

The results of the chi-square analyses for the 90-day study period can be reviewed in Table 2. A chi-square analysis comparing *study condition completion* revealed no significant differences between the DRC and Phase I conditions ($\chi^2_{(1)} = 0.13, p = .72$); approximately 50% of participants enrolled in the DRC and 52% of those in Phase I completed their assigned conditions. A chi-square analysis did reveal significant differences between the DRC and Phase I conditions for *arrest during the 90-day study period*. DRC participants were significantly less likely to have an arrest for a parole violation when compared with Phase I parolees (4.7% vs. 10.8%, respectively), but they were significantly more likely to have an arrest for a new offense during this period (24.7% vs. 14.1%, respectively; $\chi^2_{(2)} = 9.69, p = .008$). No significant differences between the study conditions were found for *conviction during the 90-day period* ($\chi^2_{(2)} = 2.27, p = .32$).

8. Time to reconviction was not analyzed in this way because the uneven time lapse between arrest and conviction is not related to any of the outcomes of interest; that is, it is a function of the justice system and not the parolee's involvement in the DRC or Phase I parole.

TABLE 2

Outcome Measures by Study Condition for 90-Day Study Period

Outcome Measure	Total N	Condition		Chi Square	OR	p
		DRC (%)	Phase I (%)			
Study Condition Completion	355	50.0	51.9	0.13	0.93	.72
Arrests: 90-Day Study Period						
Parole violation	355	4.7	10.8	9.69	—	.008**
New offense		24.7	14.1			
Arrests: Follow-up Period						
6 months	307	34.0	31.9	0.16	1.10	.69
18 months	319	46.4	45.8	0.01	1.02	.93
Convictions: 90-Day Study Period						
Parole violation	355	5.9	10.3	2.27	—	.32
New offense		0.6	0.5			
Convictions: Follow-up Period						
6 months	304	21.5	8.8	9.81	2.86	.002**
18 months	325	25.8	29.4	0.53	0.84	.47

Note. If participants were incarcerated for more than half of each respective follow-up period and did not have an arrest or conviction on record, then they were excluded from the analyses for that period, as they were not able to commit an offense.

** $p < .01$.

The Kaplan-Meier curves from the survival analysis used to examine *time to study condition failure* during the 90-day study period are shown in Figure 1. This figure and associated statistics show that the times to study condition failure are essentially the same for the two study conditions. Although DRC participants had a shorter mean time to failure (66 days; 95% confidence interval [CI] [67–70]) compared with Phase I parolees (68 days; 95% CI [64–72]), this difference is not statistically significant ($\chi^2_{(1)} = 0.22, p = .64$).

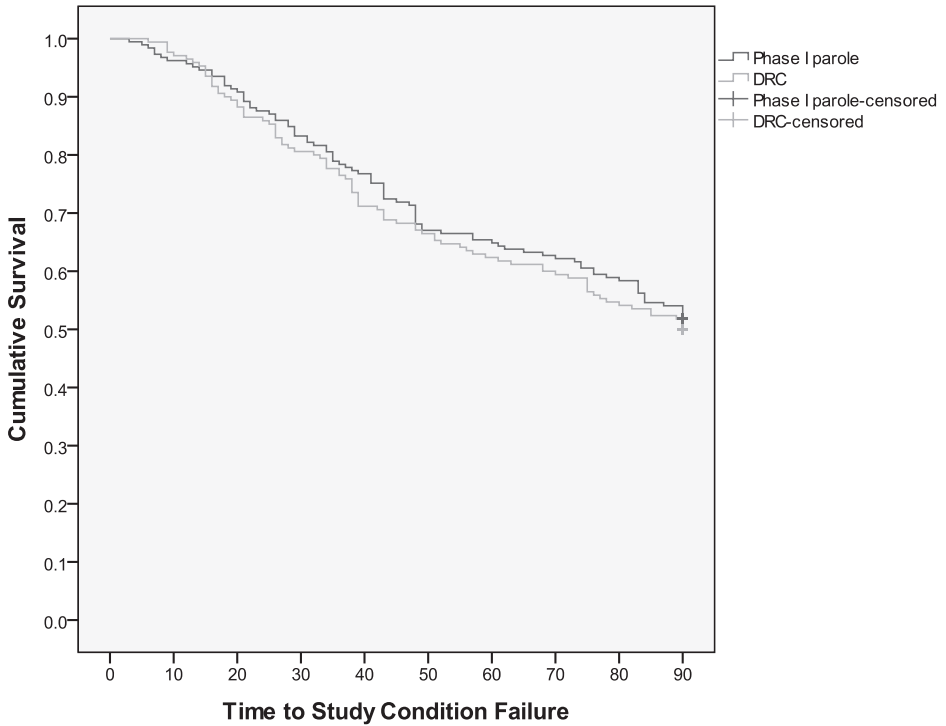
Short- and Long-Term Follow-up Periods

The results of the chi-square analyses for the short- and long-term periods can also be reviewed in Table 2. Chi-square analyses comparing the DRC and Phase I conditions for *arrests and convictions for new offenses during the follow-up periods* were conducted. In the short term, no significant differences were found in new arrests between the DRC and Phase I groups ($\chi^2_{(1)} = 0.16, p = .69$); 34% of DRC participants had an arrest during the 6-month follow-up period compared with 31.9% of Phase I parolees. However, significant differences were found in convictions between the DRC and Phase I groups ($\chi^2_{(1)} = 9.81, p = .002$), with 21.5% of DRC participants convicted for a new offense compared with 8.8% of Phase I parolees.

A chi-square analysis comparing the DRC and Phase I conditions in the long term reveals no significant difference in arrests between the DRC and Phase I groups ($\chi^2_{(1)} = 0.01, p = .93$), while slightly more DRC participants had an arrest during

FIGURE 1

**Time to Study Condition Failure in the Study Period Measured in Days,
Including Censored Days**



the long-term follow-up period compared with Phase I parolees. This difference was not significant. No significant difference in convictions was found between the DRC participants and Phase I parolees (chi square₍₁₎ = 0.53, $p = .47$) during this follow-up period.

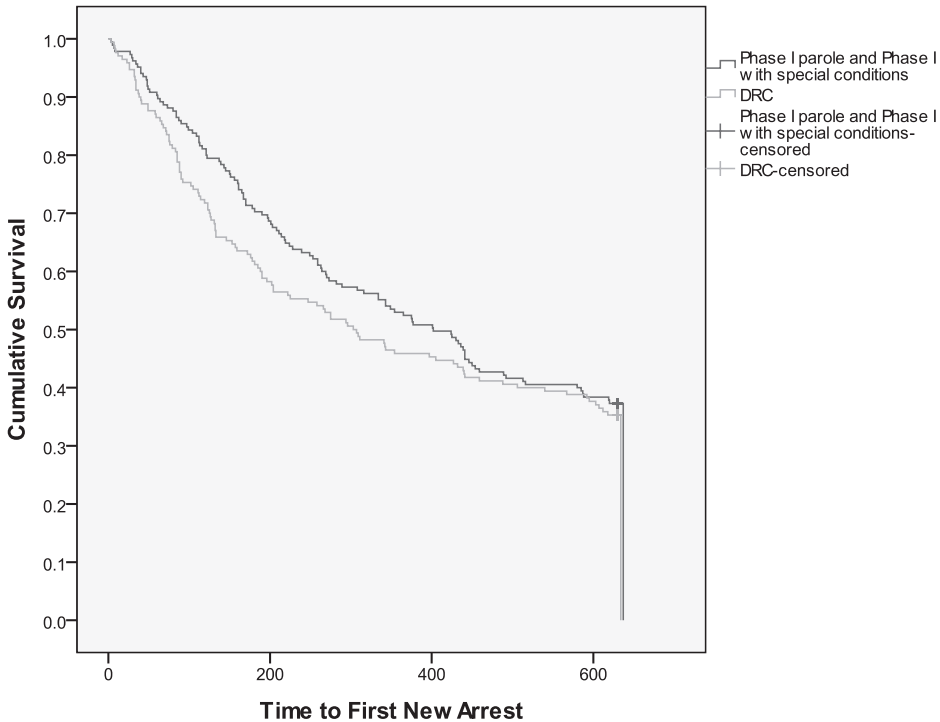
Finally, we employed survival analysis to examine *time to first arrest for a new offense* during the entire study period (i.e., 21 months or 630 days total). The participants in the DRC study condition had a shorter median time to first arrest (303 days; 95% CI [175–430]) when compared with participants in the Phase I condition (402 days; 95% CI [326–477]); however, this difference was not statistically significant (chi square₍₁₎ = 1.05, $p = .31$). The Kaplan-Meier survival curves for this measure are displayed in Figure 2.

Discussion

The current study is an experimental evaluation of day reporting centers for parolees in danger of parole revocation or increased sanctions as a result of technical violations of parole in New Jersey. The short- and long-term outcomes for parolees randomly assigned to

FIGURE 2

Time to First Arrest for a New Offense in the Study and Follow-up Periods Measured in Days



either a DRC condition or regular parole supervision as an alternative to incarceration for a study period of 90 days were examined. Overall, the results of the data analysis suggest that parolees assigned to a DRC in New Jersey fare no better and, in some instances, significantly worse than parolees assigned to normal parole supervision.

No significant differences between the DRC participants and Phase I parolees were found for study condition completion, with roughly half of each group completing their respective conditions. Such results are similar to those found in a national survey of DRCs, in which the mean positive termination rate of DRC clients was 50% (Parent, Byrne, Tsarfaty, Valade, and Esselman, 1995b). However, documented completion rates for DRC participation have varied broadly within the available literature, as some researchers have reported program completion rates of less than 40% (Brunet, 2002; Marciniak, 2000), whereas others have reported program completion rates of 60% or higher (Champion et al., 2011; Diggs and Pieper, 1994; McDevitt and Miliano, 1992; Roy and Grimes, 2002). For the current study specifically, the lack of difference in completion rates between DRC

participants and Phase I parolees indicates that offenders subject to DRC programming are equally likely to “fail” when compared with parolees on regular parole supervision. This conclusion is strengthened by the finding that the time to study condition failure did not differ between the two conditions during the study period. Thus, it can be stated that the completion statuses for the two groups are similar.

The results of analyses for arrests that occurred during the 90-day study period indicate that whereas parolees on regular parole supervision are significantly more likely to have an arrest for a parole violation, DRC participants are more likely to have an arrest for a new offense. Given that DRC participants are mandated to attend DRC programming daily while adhering to normal parole supervision guidelines (and thus have more supervision provisions than Phase I parolees), one might expect the opposite results to occur. Furthermore, tests for convictions for a new offense completed at the end of the 6-month follow-up period indicate a significant difference between the study groups on this measure, with DRC participants being nearly 2.9 times more likely to have a conviction. Finally, although survival analysis revealed that there was no significant difference in the number of days to arrest for a new offense between the two study groups, DRC participants had a shorter median time to first arrest compared with Phase I parolees by 99 days. Despite results that were not statistically significant, a difference of 99 days may have clinical significance in the supervision of parolees within the community.

Overall, the results of the current analyses directly contrast the findings of prior quasi-experimental studies in which DRC participants had fewer rearrests in the follow-up time period than their comparison group counterparts (i.e., Champion et al., 2011; Martin et al., 2003). Specifically, medium- and high-risk parolees assigned to a DRC do not fare any better (and occasionally fare worse) than a comparable group of parolees that is placed on traditional parole supervision. Our results indicate that something about the DRC experience creates an environment that is conducive to an increase in 1) offender arrests for new offenses during program participation and 2) convictions for new offenses in the short term. An arrest for a new offense, completed while under the supervision of the NJSPB, is typically grounds for a parole violation, revocation, and return to incarceration. In this way, the DRCs in the current study may contribute to an increase in reincarcerations for these parolees. As such, our findings indicate that DRCs are not an improvement over traditional parole supervision as an alternative to incarceration.

As discussed earlier in the Methods section, we conducted site visits to all of the DRCs and parole offices. Observations made during these visits suggest that the design of DRCs may be a possible explanation for the unanticipated outcomes. We observed considerable unstructured time at the DRCs during which socializing naturally took place among the participants. This included meal times (as DRCs serve both breakfast and lunch to participants), during breaks from programming, and time before and after attending daily programming. In contrast, Phase I parolees might encounter a small number of other parolees while waiting to meet with their parole officers. However, we never observed

much interaction between parolees in the parole offices. Thus, on the one hand, Phase I supervision is an individual-based intensive supervision with referral to services and additional conditions imposed based on each parolee's risks/needs (thereby minimizing the amount of contact parolees have with one another). DRCs, on the other hand, are programs that bring together antisocial individuals from throughout a municipality or larger geographic area and require them to spend significant amounts of time together on a daily basis. To borrow a phrase from popular culture, DRCs might also be viewed as an opportunity to "network" with others. However, in this case, the participants were networking with other individuals who had extensive criminal histories and who frequently had drug and alcohol abuse problems. The maintenance of criminal behavior as a result of group participation has been documented within the literature. Known as the peer contagion effect, researchers have contended that similar to disease, behaviors, attitudes, or moods can pass from person to person (Jones and Jones, 2000) and that the odds of someone being affected by such behaviors, attitudes, or moods are greatly increased when someone in that person's surrounding environment is affected (Jones and Jones, 1992, 1994). Although mainly documented among delinquent adolescents (Dishion, McCord, and Poulin, 1999), many of the same processes may be at work among the adult DRC participants in the current study. While application of this body of research and theory to this population is new to this field, we believe it warrants further discussion and research.

An additional explanation for DRCs' failures to promote desistance from criminal behaviors is the short length of programming coupled with the longevity of the parolees' criminal careers. The DRC program length of participation is 90 days, and the participants in the current study can largely be described as "life-course persistent" antisocial individuals (Moffitt, 1993), given that the sample's mean number of arrests and convictions prior to study enrollment stand near nine. As such, participants' patterns of antisocial behavior were likely well established by the time they were enrolled in this study; one would not expect to observe a change (especially a long-term change) from a 90-day program in such individuals. This is not the first instance that program length has been found to be related to program failure; in Wilson's (2007) examination of the shortcomings of Project Greenlight, the reduced length of the program was offered as one possible explanation for the unexpected outcomes.

Adding to our inability to conclude DRCs to be an improvement over standard parole supervision are the relative costs of the two programs. Phase I parole supervision in New Jersey, including all forms of supervision (e.g., electronic monitoring and GPS, as well as residential and outpatient reentry programming), costs anywhere from \$7 to \$13.67 per day per parolee depending on the programming received, whereas DRC programming in New Jersey costs \$57 per day on average (including building and operating costs). It should be emphasized that the DRC costs are fixed costs associated with maintaining facilities and paying staff. These costs do not include, for example, outpatient drug and mental health counseling, which many DRC participants also complete. And, although parole officers

are also considered to be fixed costs, they are not discretionary as all parolees are still on parole supervision while attending the DRC, and eventually they return to regular parole supervision upon DRC termination/completion.

Given that DRCs do not produce any better recidivism outcomes than standard parole supervision, taken in combination with the relative costs of each form of supervision, it is not advisable to use the DRC model to supervise medium- and high-risk parolees. This should not be construed as saying that individual supervision alone is sufficient, as most Phase I participants were assigned additional conditions at the discretion of their parole officers that could include, for example, outpatient drug treatment, mental health treatment, educational training, and employment assistance. All these services may be essential for facilitating the successful reintegration of parolees into the community.

Limitations

Although the current study used a randomized-controlled design, it has limitations. We could not evaluate fully the fidelity of implementation of DRC programming because of variability in the quality of DRC progress notes and record keeping. In many instances, the files provided from the DRC facilities were lacking much pertinent information, including intake/discharge status, dates, drug test results, and programming types/schedules. As such, we only could use DRC completion as a programmatic outcome measure and could not incorporate issues of programming differences between the treatment groups into the analyses.

Although the study was designed to maximize the number of subjects that could be recruited to participate and was adequately powered to detect differences of at least 20% between the study groups in bivariate comparisons, it was not large enough to detect smaller group differences. In the case of the survival analysis, the difference in the median time to new arrest between the study groups was approximately 3 months, which seems to be at least a clinically significant difference if not a statistical one. However, the ultimate proportion of study participants that was rearrested was so large in both groups (75% and 78%, respectively) as to render the study unable to detect a difference, if one exists. This result is likely caused not only by the sample size but also by the nearly homogenous high-risk profile of the study participants.

Directions for Future Research

The authors of the present study concur with other researchers (e.g., Weisburd, 2003) regarding the need to implement additional studies with experimental designs in crime and justice research. By doing so, researchers will be better able to delineate treatment effects from the influence of confounding variables and to determine whether programming is successful in achieving its goals. The current study is not the first instance in which an experimental study of a well-intentioned program has revealed a negative effect (see Dishion et al., 1999; Hennigan, Kolnick, Siva Tian, Maxson, and Poplawski, 2010; McCord, 2003;

Weisburd, 2003; Wilson and Davis, 2006). However, as this study is the first to examine the effectiveness of DRCs using an experimental design, ongoing experimental research in this area is warranted.

One specific area recommended for future research is to evaluate experimentally the effectiveness of DRCs with low-risk offenders, particularly, lower risk parolees. The current study consisted primarily of medium- and high-risk parolees who were referred to the study if they were in danger of parole revocation or increased sanctions as a result of technical violations of parole. Additional experimental research is needed to evaluate whether the DRC model may be more effective with strictly lower risk offenders.

Additional research is also needed to determine what specific components of standard, individualized parole programming facilitate parolee success. As mentioned previously, we could not determine the success/failure of specific programmatic components of Phase I parole supervision in the current study. Future research in this area would make a substantial contribution to the community corrections field.

Research exploring the possible impact of the peer contagion effect among parolees enrolled in group treatment may be warranted based on the findings of this study. Future research in this area could examine the relationships between program participants attending the same program during the same time period and the types of reoffending they engage in both during and after participation in treatment. A demonstration that individuals gathering at the same treatment centers during the same time period are engaging in similar types of crimes, or even arrested for the same crimes, may support the peer contagion theory.

Finally, it is noteworthy that all the DRC sites in the current study are privately run organizations that contract with the NJSPB to provide services exclusively to parolees. As noted in Parent and Corbett (1996), two thirds of DRCs started before 1992 were privately run, with public agencies becoming more predominant in the years after. These newer DRCs tended to provide fewer services than the earlier programs and gave a much greater emphasis to surveillance. In a 1994 survey of existing DRCs (Parent, Byrne, Tsarfaty, Valade, and Esselman, 1995a), it was determined that private DRCs with high turnover rates that emphasized services tended to have higher negative termination rates compared with the publicly run DRCs. Such findings have implications for this study; however, there have been no subsequent studies to date that have analyzed differences between private and publicly run DRCs, and thus, Parent and colleagues' (1995b) findings may be outdated. In addition to research in this area, more research is needed to determine whether publicly run DRCs for parolees specifically are more effective in reducing recidivism and increasing positive outcomes compared with their privately run counterparts.

Conclusion

The implications of the current research for policy and practice are significant. The overall finding is that DRC programming is not an effective alternative to traditional supervision for

medium- and high-risk parolees. Parolees can be managed effectively within a community setting, and at a lower cost using a phase-based individual system, with appropriate referral to services or additional conditions imposed by parole officers. This is not to say that DRCs should not be used as an alternative to incarceration for other offender populations; however, it does indicate that additional rigorous experimental evaluations of DRCs for multiple offender populations are warranted.

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What's Inside the "Black Box"?

The Importance of "Gray Box" Evaluations for the "What Works" Movement

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The "what works" literature indicates that resources are used most effectively when they target the risk, needs, and responsivity of offenders. Because correctional resources are often scarce, the risk principle suggests we can get the most bang for our treatment buck by focusing on higher risk offenders. Whereas the risk principle identifies whom we should treat, the needs principle tells us what areas we should treat. Interventions that target the criminogenic needs (dynamic risk factors) of offenders are more likely to decrease recidivism because changes can be made in these factors. And the responsivity principle conveys how treatment interventions should be delivered by tailoring them to the learning styles, abilities, and strengths of offenders (Andrews, Bonta, and Wormith, 2006).

The principles of effective correctional intervention were developed, as Gendreau (1996) wrote, on the basis of research that attempted to open the "black box" of treatment programs. To be sure, "black box" evaluations that determine only whether a program is effective in producing positive outcomes are necessary to help identify "what works" within corrections. To refine our understanding of "what works," however, we also need "gray box" evaluations, which provide some indications of why interventions are (in)effective, and "clear box" evaluations, which fully show why programs are successful or not (Scriven, 1994). Ideally, evaluation research should clarify how to improve policy and practice by revealing not only whether interventions are effective but also why they succeed or fail.

In their evaluation of day reporting centers (DRCs) in New Jersey, Boyle, Ragusa-Salerno, Lanterman, and Marcus (2013, this issue) determined the DRCs were no more effective than traditional parole in reducing recidivism. Boyle et al. used a randomized

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controlled trial (RCT), which is widely considered to be the most rigorous design for program evaluations (MacKenzie, 2006). Moreover, it does not seem that the randomized assignment was compromised during the study period, which is no small feat in criminal justice research. At first blush, the results from this evaluation should give us pause about the extent to which DRCs are used as an alternative to prison. Indeed, Boyle et al. conclude that the “implications of the current research for policy and practice are significant.”

As I will discuss in this essay, however, the policy implications from this study may not be as significant as they seem mainly because of the limitations intrinsic to “black box” evaluations. After offering several suggestions aimed toward increasing the transparency of community-based program evaluations, I focus on two criminogenic needs—employment and antisocial associates—central to the DRC evaluation. In particular, by highlighting recent evidence from Minnesota, I discuss findings from the “what works” literature regarding employment and social support and their implications for evidence-based practice.

“Black Box” Evaluations and Prisoner Reentry

Because this study is a “black box” evaluation, it does not tell us very much about why these DRCs were ineffective in decreasing recidivism. Based on Boyle et al.’s (2013) description of programming provided to offenders in the DRC and comparison groups, it seems that participating in job training was one of the main therapeutic contributions the DRCs made above and beyond traditional supervision. Given the emphasis on participants finding work, which was one of the conditions for progressing from Phase II to Phase III, a comparison of employment outcomes among offenders in the DRC and control groups would have provided a glimpse inside the black box. As it stands, we do not know whether the DRCs were ineffective in delivering job training, whether the job training delivered was ineffective in helping offenders find employment, whether employment had an impact on recidivism, or all of the above. More broadly, we do not know whether offenders in the DRC group actually received more services—job training or otherwise—than those in the comparison group.

DRCs are similar to prisoner reentry programs insofar as they are designed to reduce recidivism by increasing offender access to relevant programming. As prisoner reentry programs have become more numerous over the last 10–15 years, so have evaluations of these programs. Yet, because “black box” evaluations pervade the prisoner reentry literature, our knowledge of what works with prisoner reentry programs is not substantially greater than it was, say, 10 years ago.

The evaluation of the Minnesota Comprehensive Offender Reentry Plan (MCORP) (Duwe, 2012a) is a recent exception that illustrates the value of “gray box” evaluations in advancing our understanding of what works with prisoner reentry. Although this study used a randomized experimental design, what distinguished it from the vast majority of other prisoner reentry program evaluations is that it measured the delivery of services and programming for offenders in both the experimental and control groups. In doing so, the

evaluation was able to determine not only whether MCORP increased offender access to specific types of programming (e.g., drug treatment, education, vocational training, etc.) but also whether participation in various programming had an impact on recidivism.

The results showed the program significantly improved employment rates, decreased homelessness, broadened offenders' systems of social support, and increased the extent to which offenders participated in community support programming (Duwe, 2012a). MCORP had a significant effect on multiple measures of recidivism, and the main keys to success seemed to be increased employment and social support. Although the findings suggested MCORP is an effective reentry model, the evaluation also identified ways in which the program could potentially be more effective. Most notably, a continuum of chemical dependency (CD) treatment from prison to the community was associated with reduced recidivism for offenders in both the MCORP and control groups. Yet, MCORP did not increase the extent to which offenders participated in CD treatment in both the prison and the community. If it had, then MCORP might have achieved even better recidivism outcomes.

One of the biggest challenges in conducting gray box evaluations of programs that deliver community-level programming involves the collection of service delivery data for both program participants and offenders in the comparison group. In evaluations of jail- or prison-based programs, it is often easier to measure and control for participation in programming, which takes place within highly controlled correctional facilities, because correctional systems routinely collect and maintain a variety of data in centralized databases. With programming delivered to offenders in the community, however, frequently multiple service providers vary widely in their ability and willingness to collect, maintain, and report program delivery data. Indeed, Boyle et al. (2013) suggest that "record limitations" precluded an analysis of community-level programming data.

In an effort to facilitate more evaluation research that pries open the black box of interventions such as DRCs or prisoner reentry programs, the collection and analysis of community-level programming data for offenders in the treatment and comparison groups should become a standard requirement for state and federal grants and contracts. For service providers, funding requirements should include, at a minimum, the tracking of program delivery data. Yet, to help increase the delivery of programming to offenders, funding could also be tied to performance in which appropriations are based, for example, on how many offenders participated in CD treatment, how many obtained employment, how many earned secondary and postsecondary educational degrees, and so on.

For program evaluations, proposals are often given preference during the grant application process if they include, among other things, a rigorous research design such as RCT. Similarly, evaluation proposals for interventions that deliver community-level programming should also be given preference if they can analyze programming data for offenders in both the treatment and control groups. Raising the expectations for funded research will not necessarily lead to more evaluations that fully explain whether and why interventions

work, but it may help produce more gray box evaluations, which will be vital to improving what we know about effective correctional policy and practice.

What Works with Employment Programming

Although we do not know why the DRCs examined were ineffective in reducing recidivism, the results from prior evaluations of community-based programs that provide offenders with employment assistance have not been overwhelmingly positive. In their meta-analysis of eight evaluations of community-based employment programs, Visher, Winterfield, and Coggeshall (2005) concluded that community employment programs do not have a significant effect on recidivism. Yet, given the lack of contemporary evaluations combined with wide differences among the offenders who participated in these programs and the type of programming delivered, Visher et al. (2005) cautioned against generalizing these findings to all employment programs for former prisoners.

These results notwithstanding, existing research has suggested that work is a buffer against crime and, more narrowly, recidivism. Individuals are less likely to commit crime when they work more often (Uggen, 1999) and have employment that is stable (Crutchfield and Pitchford, 1997), is considered satisfying (Uggen, 1999), and is perceived as having career potential (Huiras, Uggen, and McMorris, 2000). Along with education, employment has been identified as a criminogenic need for offenders (Andrews et al., 2006). Therefore, to reduce recidivism, the principles of effective correctional intervention suggest that an intervention such as job training should be targeted toward higher risk offenders who lack, for example, a legitimate work history and/or vocational skills.

By focusing on higher risk, unemployed offenders, the DRCs seem to be consistent with the risk and need principles. Although it is unclear what was included within the job training received by DRC participants, recent evidence suggests employment programs can be effective in helping prisoners find work and reduce their risk of recidivism. For example, an evaluation of EMPLOY, a reentry employment program for Minnesota prisoners, showed that participation in the program significantly increased employment and decreased reoffending (Duwe, 2012b). EMPLOY participants were not only more likely than their comparison group counterparts to find a job after their release from prison, but they were also more likely to maintain their employment, resulting in more total wages earned.

In contrast to employment programs that provide services primarily in prison or the community, EMPLOY offers a continuum of employment programming by delivering services in both the institution and the community. Approximately 60–90 days prior to their release from prison, EMPLOY participants begin meeting with a job training specialist to address issues such as skills assessments, resumes, job searching techniques, and interviewing skills. The week before a participant gets released from prison, a job development specialist will begin searching for job leads based on the participant's vocational skills and making phone calls to employers that are known to hire ex-offenders. As soon as participants get released from prison, a retention specialist provides participants with a portfolio that

contains copies of their resume, any certification submitted to EMPLOY, job leads, and any additional resources or tools to assist them with their job search. After this initial meeting, the retention specialist maintains contact with each participant during the first year after release and continues to provide support by helping the participant with job leads and résumé maintenance (Duwe, 2012b).

As noted in the DRC evaluation, parolees were assigned to the treatment group when they were at risk of having their parole revoked. However, rather than waiting for parolees to fail in the community, intervention should begin further “upstream” within the institution. As shown in the EMPLOY evaluation and other prisoner reentry research (Inciardi, Martin, and Butzin, 2004; Taxman, 1998), providing a continuity of programming from prison to the community can improve recidivism outcomes by fostering a more seamless reentry to society. The “aftercare,” postrelease support that EMPLOY provides in the community may be valuable in making sure that participants maintain employment. Although helping offenders find a job is important, maintaining it is critical when it comes to reducing recidivism.

Moving the DRCs examined in Boyle et al.’s (2013) study further upstream could entail recasting them as early release prisoner reentry programs. By offering early release to prisoners, the DRCs would still retain a key element of their design—a cost-effective alternative to prison. Moreover, connecting DRC program entry to an offender’s release from prison could help facilitate a stronger continuity in the delivery of programming from the institution to the community. For public safety reasons, early release programs often target lower risk offenders, which would also dovetail with one of the suggestions for future research made by Boyle et al.

The Importance of Social Support

In their discussion of the evaluation findings, Boyle et al. (2013) posit that the negligible impact of the DRCs on recidivism may be attributable to a peer contagion effect. If what Boyle et al. observed in their site visits is true, then the design of the intervention may exacerbate a major criminogenic need for offenders. After all, existing research has shown that offenders who maintain antisocial associates are more likely to recidivate (Andrews et al., 2006). For example, research on Minnesota prisoners indicated that the risk of recidivism is significantly higher for male offenders who are identified as active members of a security threat group (i.e., an active gang affiliation) (Duwe, 2013b).

Recent research has suggested that maintaining, developing, or enhancing prosocial sources of support significantly improves recidivism outcomes. Over the last 5 years, several studies have shown that prison visitation is associated with reduced recidivism (Bales and Mears, 2008; Derksen, Gobeil, and Gileno, 2009; Duwe and Clark, 2011). Evaluations of Circles of Support and Accountability (CoSA), a reentry program that attempts to increase prosocial community support for high-risk sex offenders, have shown that it significantly decreases reoffending (Duwe, 2013a; Wilson, Cortoni, and McWhinnie, 2009). And the

findings from a recent evaluation of the InnerChange Freedom Initiative (InnerChange), a faith-based reentry program, suggest the beneficial recidivism outcomes for program participants may have been, in part, a result of the continuum of mentoring support some offenders received in both the institution and the community (Duwe and King, 2012).

Correctional programming is often geared toward addressing offender needs such as chemical dependency, housing, employment, education, and mental illness. Of course, there is ample justification for this programmatic emphasis because of the deficits commonly observed among prisoners. Still, when an intervention's design does not fully account for the impact of antisocial associates, then it could have adverse consequences for recidivism outcomes.

Programming that increases prosocial sources of support warrants greater attention as a correctional intervention not only because of its demonstrated efficacy in reducing recidivism but also because of its potential cost-effectiveness. Compared with other correctional programs, interventions that focus primarily on increasing social support for offenders are generally less costly to operate. For example, programs such as CoSA and InnerChange have relatively low operational costs because they rely heavily on volunteers from the community. Likewise, efforts to promote greater visitation in correctional facilities (e.g., revising institutional policies to make them more "visitor friendly," implementing video visitation, etc.) are relatively low-cost strategies that could yield significant public safety benefits.

Conclusion

It has been nearly 40 years since the "nothing works" claim was made. In the decades after this controversial claim, the overarching goal of the "what works" movement has been to identify what works best for whom under which circumstances. In this essay, I have discussed what Minnesota's recent "what works" literature has to say about evidenced-based practices relating to employment and social support. Nevertheless, optimizing correctional policy and practice rests on a more granular understanding of what works with offenders. Existing research has shown, for example, that increasing the length and dosage of treatment generally yields better recidivism outcomes, particularly for higher risk offenders (Lowenkamp, Latessa, and Holsinger, 2006; Sperber, Latessa, and Makarios, 2013), but there is also a point at which longer durations of treatment can produce diminishing returns (Duwe, 2010; Loughran et al., 2009; Wexler, Falkin, and Lipton, 1990).

We tend to miss this level of detail with black box evaluations. Compared with interventions such as drug treatment, which typically focus on the delivery of one type of programming to offenders, getting inside the black box of DRCs or prisoner reentry programs is more challenging because of the array of services and programs they often attempt to provide offenders. Despite the difficulties in conducting gray box evaluations (i.e., more detailed specifics on services provided and to whom) of multifaceted, community-level interventions, our past experience with the "what works" movement suggests it will be worth

the effort. Only when we begin to assess program delivery and the impact these services have on recidivism will we understand more clearly what makes these interventions successful.

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Why Didn't They Work? Thoughts on the Application of New Jersey Day Reporting Centers

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Over the past several decades, incarceration rates in the United States have increased by more than 200%, resulting in overcrowded state prison systems (Blumstein and Beck, 2005; Clear, 1994; Glaze, 2010; Irwin and Austin, 2012; Pew Center on the States, 2009). In the 1980s and 1990s, day reporting centers (DRCs) and other intermediate sanctions were developed to address problems resulting from the increased use of incarceration (e.g., overcrowding, increased correctional costs) by diverting offenders away from traditional confinement facilities while maintaining a higher level of control and accountability than standard probation (MacKenzie, 2006; Parent, Byrne, Tsarfaty, Valade, and Esselman, 1995; Tonry and Lynch, 1996). Some exceptions notwithstanding (see, e.g., Gendreau and Ross, 1987), these early intermediate sanctions were designed primarily to reduce offenders' odds of recidivism through increased punishment, supervision, and control (MacKenzie, 2006). The evidence concerning the effects of these sanctions was not encouraging; recidivism and program failure rates were high, resulting in little to no impact on prison populations (Parent et al., 1995; Petersilia, 1998).

Although incarceration rates in most states have leveled off (Glaze, 2010), the problems stemming from the increased use of incarceration in the 1980s and 1990s persist. In light of the evidence concerning the effects of control-oriented intermediate sanctions, some states have revamped their existing programs in an effort to reduce correctional costs and improve public safety by reducing participants' odds of recidivism. Programs have added treatment services to address offenders' needs pertaining to employment, drug use, and

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so forth (MacKenzie, 2006). The New Jersey DRCs evaluated by Boyle, Ragusa-Salerno, Lanterman, and Marcus (2013, this issue) seem to be such programs. Yet, Boyle et al. provide experimental evidence that these DRCs, which include a treatment component, life skills, and other services designed to facilitate prosocial offender change, did not reduce DRC participants' odds of recidivism compared with parole violators who received an upgrade in supervision intensity and related sanctions.

In this essay, we do not comment on the merits of Boyle et al.'s (2013) study, as an experimental design is a strong design and we do not question their findings. Rather, we focus on the application of the New Jersey DRCs. We also describe several modifications that could be made to such programs and may result in more desirable outcomes. Finally, we consider how Boyle et al.'s findings should be evaluated in terms of the effects of day reporting programs.

Observations on the Application of the New Jersey DRCs

Participant Selection

Day reporting programs are typically implemented to alleviate prison crowding and save correctional costs (Boyle et al., 2013; McDevitt and Miliano, 1992; Parent et al., 1995). For prison populations to be reduced, offenders would have to be sent to DRCs in lieu of prison. Offenders who meet this criterion include imprisoned offenders who are near release and convicted offenders who would have otherwise been sentenced to prison. Probation or parole violators who would have been imprisoned via revocation also would qualify. If DRC participants are drawn from other populations, then net widening will probably occur and prison populations are unlikely to be reduced (Parent et al., 1995).

Boyle et al. (2013) report that participants in the New Jersey DRCs were selected from the population of parolees who violated conditions of their parole and who were eligible for additional sanctions. Parole violators who were not assigned to a DRC (as a result of the randomization process) received an upgrade in supervision intensity and had one or more special conditions imposed (e.g., curfew, drug counseling). Thus, the participants in the New Jersey DRCs were not drawn from offenders who were imprisoned or prison bound. For the New Jersey DRCs to have an effect on the prison population, then, participation in a DRC would have to be associated with lower odds of recidivism than the standard response to a parole violation. In other words, a DRC placement would have to yield a crime prevention effect. Boyle et al. observed that participation in a DRC was not associated with a crime prevention effect.

Social science evidence suggests that control-oriented intermediate sanctions (e.g., drug courts, intensive supervision) can decrease participants' odds of recidivism when they include a treatment component (Harrell and Roman, 2001; Hawken and Kleinman, 2009; Petersilia and Turner, 1993; Taxman, Soule, and Gelb, 1999). The New Jersey DRCs all contain a treatment component as well as other services that could be associated with lower odds of recidivism. However, not all treatment is effective in reducing recidivism

(MacKenzie, 2006). If the treatment services applied in the New Jersey DRCs were not evidenced based or were implemented incorrectly, then participation in a New Jersey DRC would be unlikely to yield different effects than participation in other control-oriented intermediate sanctions.

The extant evidence suggests that intensive services, such as the type delivered in DRCs, should be reserved for high-risk offenders (Lowenkamp and Latessa, 2005; Lowenkamp, Latessa, and Holsinger, 2006). Boyle et al. (2013) report that New Jersey used the Level of Service Inventory-Revised (LSI-R) to assess offenders. The LSI-R groups offenders into high, medium/high, moderate, low/moderate, and low risk. Boyle et al. report that only medium- and high-risk offenders were sent to DRCs, but an inspection of Table 1 of Boyle et al.'s study shows that the mean LSI-R score for the treatment group was 24.4 ($s = 6.2$), which corresponds to low/moderate (14–23) to moderate (24–33) risk in typical offender samples (Andrews and Bonta, 2001; Ostermann, 2009; White, Mellow, Englander, and Ruffinengo, 2011). It could be that parole officials in New Jersey sent offenders to DRCs who they perceived were high risk (based on violations of parole) but who were actually not high risk.

Delivering intensive service to high-risk offenders is important because the most gains can be realized with this group of offenders and because subjecting low- or moderate-risk offenders to intensive services could increase their odds of recidivism (Lowenkamp and Latessa, 2005). Placing low- or moderate-risk offenders in treatment intended for high-risk offenders can expose them to environments in which they observe and learn antisocial behaviors and/or form new associations with high-risk peers. Subjecting low- or moderate-risk offenders to intensive services also can disrupt prosocial networks and supports, and can expose them to greater scrutiny, increasing the odds of violations being detected (Lowenkamp and Latessa, 2005; Lowenkamp et al., 2006). Such processes could explain the null effects of the New Jersey DRCs.

Treatment

Placing the appropriate offenders in intensive services such as day reporting programs is an important first step toward realizing desired results (e.g., reductions in prison populations, reductions in recidivism rates), but it is also important that the treatment services that are delivered in these programs be evidenced based and applied with therapeutic integrity (Smith, Gendreau, and Goggin, 2009). Boyle et al. (2013) could not provide in-depth details regarding the differences between the DRCs they assessed, but they described some of the typical characteristics of New Jersey's DRCs. These characteristics can be assessed in light of the evidence concerning effective correctional interventions.

Boyle et al. (2013) note that offenders placed in New Jersey DRCs have a typical length of stay of 90 days, during which they attend programming every weekday and submit to random urinalysis. During Phase I of the program, offenders participate in

orientation sessions and life skills training based on cognitive behavioral principles. Phase I typically lasts 14 days. During Phase II, offenders participate in job training and an individualized treatment program until they obtain employment or enroll in an approved educational/vocational program. In Phase III, participants develop a relapse prevention plan, continue to attend individual counseling sessions, and check in with the DRC when they are not at work or school. Parole officers also supervise DRC participants in a manner consistent with offenders not enrolled in DRCs (Boyle et al., 2013).

The New Jersey DRCs have several components of effective correctional interventions. The DRCs deliver intensive (daily) services, and Boyle et al. (2013) report that the treatment delivered in the DRCs is multimodal, a portion of which is based on cognitive behavioral principles. However, participants receive treatment only until they obtain employment or enroll in an educational/vocational program. For some offenders, this could be fewer than 3 weeks, and for most offenders, treatment would be terminated well before 90 days. Although an exact formula for treatment length is impractical, evidence suggests that lengthier treatments are more effective than treatments that are shorter in duration (Bourgon and Armstrong, 2005; Lowenkamp et al., 2006; Petersilia, 2004). Some researchers have recommended 100 hours over a 3–4-month period, followed by aftercare as needed (e.g., Andrews and Bonta, 2006; Smith et al., 2009). If the New Jersey DRCs are targeting primarily moderate-risk offenders as we discussed, then the duration (but not the intensity) of the treatment may be appropriate. If the DRCs are serving medium and high risk offenders as Boyle et al. suggested, then the New Jersey DRCs fall short of the recommended duration of treatment.

Programs that are longer in duration are more effective than shorter programs because high-risk offenders typically have multiple needs that require treatment. The New Jersey DRCs, although multimodal in some respects, seem to focus primarily on employment or education/training that leads to employment. Employment is a need area for many offenders; however, other risk factors are equally important (e.g., family issues), and some risk factors are stronger predictors of recidivism (e.g., antisocial attitudes) (Andrews and Bonta, 2006). It seems unlikely that offenders' needs beyond employment could be adequately addressed within the framework of the New Jersey DRCs. Thus, the New Jersey DRCs may have been ineffective in reducing recidivism because they did not target all of offenders' risk factors for a sufficient period of time.

Although Boyle et al. (2013) report that they could not assess program fidelity, it is worth noting that the New Jersey DRCs may not have delivered effective treatment, even if they purported to do so. For instance, researchers have recommended that treatment be delivered by staff members who have been trained on evidenced-based practices and the program curriculum. Furthermore, the program curriculum should be described in a comprehensive manual that staff members can access easily (Smith et al., 2009). It is possible that some or all of the New Jersey DRCs were deficient in these areas, which could account for Boyle et al.'s findings.

Rethinking the Application of Day Reporting

Boyle et al. (2013) reported that New Jersey DRCs are not more effective in reducing participants' odds of recidivism than a supervision upgrade and additional conditions of release. We have speculated why Boyle et al. observed these findings, although a process evaluation would be needed to support our observations. New Jersey also might consider an evaluation of the therapeutic integrity or quality of their DRCs (see Gendreau and Andrews, 2001; Smith et al., 2009). Such an evaluation could provide valuable insights regarding how to make their programs more effective in reducing recidivism. Based on the extant evidence concerning effective treatment, however, we provide recommendations for DRCs that could result in more desirable outcomes such as reductions in prison populations, correctional costs, and offender recidivism.

Our first series of recommendations concerns who is placed in DRCs. If the DRC is designed to reduce prison populations, then the easiest way to achieve this outcome is to send only imprisoned or prison-bound offenders to DRCs (Parent et al., 1995). As discussed, this population would include prison inmates who are near release and convicted defendants who received a DRC placement in lieu of a prison sentence. Offenders who violate probation or parole also would be appropriate if they would have otherwise been imprisoned via revocation. States who place imprisoned or prison-bound offenders in DRCs will realize reductions in prison populations even if failure rates for DRC participants are high.

States also could achieve greater reductions in prison populations if DRC participants have lower odds of recidivism than imprisoned offenders. Similarly, states that use DRCs as a sanction for offenders who violate probation or parole, but who are not appropriate for revocation (as was the case in Boyle et al.'s [2013] study), also could observe a reduction in their prison population if participation in a DRC is associated with lower odds of recidivism than alternative responses (e.g., traditional supervision). We argue that DRCs will be more likely to achieve reductions in recidivism, compared to alternative responses, if they are based on evidence-based principles. To this end, we recommend that DRCs be reserved for high- or medium/high-risk offenders. We recommend further that risk levels be defined by offenders' scores on an empirically informed risk/needs assessment that has been validated for the relevant population.

Our second series of recommendations involves the type and quality of services being delivered by DRCs. To increase the odds that participation in a DRC is associated with reductions in recidivism relative to alternative placements, the treatment services that are delivered within these programs should be evidence based (MacKenzie, 2006). That is, they should be multimodal treatment services that are based on behavioral strategies. Treatment should be delivered by qualified staff who have been trained on the program curriculum and have access to a comprehensive program manual. Finally, treatment should be of sufficient length to address all the offenders' risk factors and should be accompanied by aftercare upon

completion (Andrews and Bonta, 2006; Smith et al., 2009). If the treatment component of DRCs adheres to most or all of these guidelines, then participants in these programs should have lower odds of recidivism than offenders who receive alternative placements. In contrast, failure to deliver evidence-based treatment within the context of a DRC could result in higher odds of recidivism for participants relative to other offenders. Day reporting programs that do not provide effective treatment amount to little more than intensive, control-oriented intermediate sanctions. As we discussed, the evidence concerning the effects of control-oriented intermediate sanctions on participants' odds of recidivism has been less than encouraging (MacKenzie, 2006; Parent et al., 1995; Petersilia, 1998; Smith et al., 2009).

Conclusion

Because of their high recidivism rates, offenders released from prisons contribute significantly to crime rates and state prison populations (Blumstein and Beck, 2005; Rosenfeld, Wallman, and Fornango, 2005; Travis and Lawrence, 2002). Evidence regarding effective strategies for managing recently released offenders in the community is important for shaping policies related to offender supervision, not to mention resource allocation and public safety. Day reporting programs that combine intensive supervision with intensive service delivery hold promise for reducing participants' odds of recidivism and, ultimately, prison populations. However, Boyle et al. (2013) have provided experimental evidence that placement in a DRC as a sanction for violating parole is not more effective in reducing parole violators' odds of recidivism than an upgrade in supervision intensity and additional conditions of supervision. Although we have provided several plausible explanations for Boyle et al.'s (2013) findings that pertain to the application of the New Jersey DRCs, their study design was sound, and so their findings should be taken seriously. It is logical, then, to inquire how these findings should be considered within the extant evidence regarding the effectiveness of day reporting programs. For several reasons, we caution against basing policy decisions on Boyle et al.'s findings outside of the context in which their study was conducted.

First, experimental designs are high in internal validity, but they are low in external validity (Shadish, Cook, and Campbell, 2002). Second, the application of day reporting programs varies considerably within and across jurisdictions (Boyle et al., 2013; Craddock, 2009; Kim, Spohn, and Foxall, 2007). For instance, some programs serve offenders on probation or parole, whereas other programs are applied to offenders in lieu of prison or jail. Third, there are more differences than similarities in the components of day reporting programs (Parent et al., 1995). All programs require offenders to report daily, but some programs offer treatment, other programs offer high-quality multimodal treatment, whereas other programs simply supervise and monitor participants. Our point is simply that there are too many differences between the DRCs examined by Boyle et al. (in terms of the participants and program features) and other day reporting programs to infer that

day reporting programs in general do not work based solely on the findings from this study.

Findings from an earlier evaluation of New Jersey DRCs may be illustrative. Ostermann (2009) conducted a retrospective quasi-experimental study of New Jersey's DRCs and Halfway Back (HWB) programs. He compared recidivism outcomes of individuals released from prison to DRCs, HWB programs, parole supervision, and no supervision (sentence maxed out). Assignment to DRCs, HWB programs, and parole supervision was decided by parole officials based on consideration of offenders' risk to the community. After statistically controlling for relevant covariates, Ostermann (2009) found that offenders released to DRCs, HWB programs, and parole supervision had lower odds of recidivism than offenders who simply maxed out. Based on an examination of the magnitude of effects, he also observed that offenders released to DRC programs were the least likely to recidivate, followed by offenders release to HWB programs, and then offenders released to traditional parole supervision.

The differences in the findings from Ostermann's (2009) study and Boyle et al.'s (2013) study could be attributed to the methodological rigor in the designs; however, these differences also could be a result of differences in how the DRCs were applied in each study. In Ostermann's study, DRCs were used to assist offenders with the transition from prison to the community. Offenders were assigned to DRCs based on parole officials' evaluations of offenders' risks and needs. In Boyle et al.'s study, offenders were assigned to DRCs as a consequence for violating their parole, and because of the experimental design of Boyle et al.'s study, parole officials randomly assigned parole violators to DRCs. It could be that the differences in the two populations (parolees vs. parole violators) or differences in how offenders were assigned (parole officers' real-world decisions vs. random assignment) contributed to the differences in the findings. Of course, there is no way for us to know which scenario is true. Our point is simply that the findings from Boyle et al.'s study are only generalizable to the context in which their study was conducted and should not be given any more weight than other well-conducted studies of day reporting programs that were applied differently.

Boyle et al. (2013) note that there is limited research on the effectiveness of day reporting programs, and we echo their call for additional rigorous evaluations of DRCs. Continued evaluation of day reporting programs and other correctional interventions will help us better understand what works, what does not, and perhaps more importantly, *why* some programs work and others do not. Until such evaluations have been conducted, however, it may be worthwhile to draw from the extant evidence concerning other intermediate sanctions when developing policy recommendations. Such recommendations might be useful for existing day reporting programs as well as for states seeking to implement day reporting programs. Based on the evidence regarding the effects of intermediate sanctions that combine intensive supervision and treatment (e.g., Harrell and Roman, 2001; Hawken and Kleinman, 2009; Petersilia and Turner, 1993; Taxman et al.,

1999), it stands to reason that day reporting programs could reduce participants' odds of recidivism and, consequently, prison populations if they are applied correctly.

First and foremost, day reporting programs should include a treatment component. As we discussed, there is virtually no evidence to suggest that programs that simply punish and/or monitor offenders achieve reductions in prison populations or recidivism. Second, day reporting programs should be reserved for high- or medium/high-risk offenders. Recall from our discussion that intensive services, such as those delivered in day reporting programs, are more effective for high-risk offenders but also can be detrimental to low- or moderate-risk offenders. Third, the treatment delivered in day reporting programs should be multimodal and based on behavioral approaches. Fourth, treatment should be delivered by staff who have been trained on the program curriculum and have access to a comprehensive program manual. Fifth, the treatment delivered within day reporting programs should be of sufficient length to address a number of offenders' risk factors and should be accompanied by aftercare as needed. Finally, day reporting programs should be subjected to ongoing outcome and process evaluation. Rigorous outcome evaluations such as Boyle et al.'s (2013) study can inform program administrators whether their program is achieving its desired results, whereas process evaluations can provide information why a program may or may not have worked. Such information is critical for assisting correctional administrators in modifying day reporting programs to achieve intended results.

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Using Day Reporting Centers to Divert Parolees from Revocation

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Boyle, Ragusa-Salerno, Lanterman, and Marcus (2013, this issue) use an experimental design to explore the impact of day reporting center (DRC) participation on parolee outcomes in New Jersey. In this study, DRC participation stems from reactive referrals by parole officers after their cases have exhibited violation-worthy behaviors. Boyle et al. found that parolees who were referred to DRCs did no better than those who were referred to continued community supervision without DRCs according to several outcomes, and in some instances, they did significantly worse than the non-DRC group. These findings are notable not only because they represent (to date) results from the most methodologically rigorous assessment of DRCs' impacts, but also they starkly contrast previous studies that have found DRCs to be associated with favorable outcomes when used as alternatives to revocation and reincarceration (see Champion, Harvey, and Schanz, 2011; Martin, Lurigio, and Olson, 2003). The major policy takeaways offered by Boyle et al. are that DRCs may contribute to increases in returns to incarceration while costing more money to operate than traditional parole supervision, and thus, they do not advise using DRCs as alternatives to incarceration for medium- and high-risk parolees.

I respectfully disagree with the policy directions that Boyle et al. (2013) propose. Although Boyle et al. provide thoughtful reflections on their results, recommending that DRCs should not be used for parolees, especially for those who are actuarially assessed as being relatively high risk, is hasty counsel given the parameters of their study and the weakness of their results. In this policy essay, I situate Boyle et al.'s findings within a broader context of evidence-based correctional practice, with particular attention paid to the study of programmatic quality. Additionally, I provide insights into the potential impacts of following the policy recommendations that Boyle et al. espouse. This essay concludes with policy action steps that are informed by evidence-based practices.

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The Importance of Program Quality

The correctional interventions literature consists of robust findings about effective strategies to decrease offender recidivism. These findings largely consist of actuarially assessing criminal risks, targeting crime-producing needs, and being responsive to individual-level responsiveness characteristics. An emerging branch of this literature focuses on the impacts of correctional programming quality on recidivism. Instruments such as the Correctional Program Checklist (CPC) and its predecessor the Correctional Program Assessment Inventory (CPAI) allow assessors to measure actuarially the capacity of correctional programs to deliver evidence-based interventions and services, as well as whether the content that is delivered by the program coincides with established evidence-based principles. The findings within this literature have generally demonstrated that programs that adhere to evidence-based principles more strongly are more effective at decreasing recidivism (Andrews and Dowden, 2006; Barnoski, 2004; Dowden and Andrews, 2004; Latessa and Holsinger, 1998; Latessa, Lovins, and Smith, 2010; Lowenkamp, Latessa, and Smith, 2006).

For example, Lowenkamp et al. (2006) analyzed return to custody rates across a 2-year follow-up period of 3,237 offenders placed in 1 of 38 residential community-based programs in Ohio compared with an equivalently sized matched group of offenders who were not transitioned through community programs. Their results demonstrated that programs with low CPAI scores were associated with a modest 1.7% decrease in return to custody rates, those with fair CPAI scores were associated with an 8.1% decrease, and the highest scoring programs were associated with a 22% decrease in recidivism. An additional study conducted in Ohio using similar methods measured reconviction rates over 2 years of follow-up time of more than 12,000 offenders who completed 1 of 64 community-based programs and compared their outcomes with matched comparison cases that did not receive services through community programs. Program quality was measured with the CPC. The results demonstrated that low-scoring programs were associated with an approximate 3% increase in recidivism, moderate-scoring programs were associated with a 6% decrease in recidivism, and those that scored high on the CPC were associated with about an 18% decrease in recidivism. In summary, correctional programs vary considerably in their quality, and higher quality programs are associated with better outcomes.

Boyle et al. (2013) performed site visits to ascertain the fidelity of the DRCs to the treatment models they were supposed to deliver and to get a feel for the day-to-day goings on within the programs. The content of their visits included observations, interviews with site administrators and personnel about intake procedures and programming, and reviews of program materials. Although Boyle et al. should be commended for attempting to investigate the programmatic processes of the DRCs that they studied, their visits likely did not provide for adequate insights into the quality of the programs. Without information about the variation of programmatic quality between the seven DRC sites that were included within this study, it is difficult to say whether DRCs as a model

are poor, as Boyle et al. suggest, or whether specific sites Boyle et al. studied are poor and potentially contributed to undesirable results of those they served. These avenues are important to explore because of the small sample size of the treatment group and the potential spread of the sample across the various DRCs that were included in the study.

Boyle et al.'s (2013) study included 170 DRC participants spread across seven DRC sites for an average of approximately 24 treatment cases per DRC site. If, for example, two of the seven sites were of very low quality and all 24 cases that were served by these DRCs were rearrested for new offenses within the 90-day study period, then this would result in an approximate recidivism rate of 28% ($48 / 170 \times 100$). This hypothetical recidivism rate exceeds the DRC group's arrest rate for new offenses of 24.7% during the study period. Within this example, it is a strong assumption that parolees are distributed evenly across the seven DRC sites. The design of Boyle et al.'s study randomly assigns parolees to a DRC or Phase I condition at the time that the parolee is in danger of revocation. The seven DRCs provide services to five parole offices. If a parole office is more apt to initiate sanctions for parolees, and the DRC that serves that office is of relatively low quality, then the results of this study may have been impacted by having a disproportionate amount of parolees from a handful of offices being sent to low-quality programs. Office- and officer-level variations in the likelihood to sanction parolees are an emerging area of criminological research that warrants further study (see Grattet, Lin, and Petersilia, 2011; Lin, Grattet, and Petersilia, 2010). How these variations may interact with program referrals and program quality has yet to be adequately explored.

Taken together, the policy recommendations of this study are likely overreaching given the lack of information about how cases were spread across the DRC sites and what was the relative quality of those sites. Boyle et al. (2013) note that they were hard pressed to assess the fidelity of implementation of DRC programming because of variations in the quality of progress notes and record keeping at the sites. They found that several facilities lacked information about dates and statuses of client intakes and discharges, results from drug tests, and programming types and schedules. Boyle et al.'s observations likely indicate that the DRCs that were included in this study may have substantial issues with quality control (which, incidentally, is a domain of the CPC). But without more formal inquiries into the quality of the individual programs and what the treatment group's representation was across the different sites, it is difficult to ascertain whether all of the DRCs that were studied are poor performers, or whether we are observing a bad apple (or several bad apples) spoiling the bunch. Whether it is the former or the latter, more reasonable and impactful policy recommendations could be made from this research. After offering insights into the potential impacts of following Boyle et al.'s recommendations, I conclude this essay with action steps that are grounded in evidence-based correctional practices.

Limiting Diversionary Resources of Parole Officers

The practice of returning parolees to incarceration as a result of supervision infractions has grown considerably. In 1980, approximately 27,000 parolees were reincarcerated because of parole revocations, representing about 18% of total prison admissions. By 2000, this number increased to more than 200,000, representing 34% of prison admissions (Travis, 2007). The growth of this practice far outpaced the overall growth in incarceration from 1973 to 2000. Although the per-capita rate of incarceration increased fourfold during this time period, the growth in incarcerations for parole revocations increased more than sevenfold (Travis, 2007). As a result, mass incarceration has become increasingly tied to parole agencies' practice of reincarcerating former prisoners for supervision revocations rather than imprisonments for new offenses alone (Clear, 2007; Lin et al., 2010). Notably, in 2010, the United States experienced the first decrease in its prison population in 38 years. Compared with 2009, the rate of return for parole violators decreased by 4.4%, which represented approximately 40% of the total decline in state prison admissions in 2010 (Guerino, Harrison, and Sabol, 2011). Although comprehensively reviewing the nuances behind this decline go beyond the scope of this essay, state-specific analyses of prison admissions have indicated that diversion programs for parolees have played important roles in the realization of these declines (Pew Center on the States, 2010).

After demonstrating that a significantly larger proportion of the DRC group was arrested for new offenses within the 90-day study period, Boyle et al. (2013) state that "an arrest for a new offense, completed while under the supervision of the NJSPB, is typically grounds for a parole violation, revocation, and return to incarceration. In this way, the DRCs in the current study may contribute to an increase in reincarcerations for these parolees." In practice, when parolees are arrested during the course of their supervision, parole officers are faced with a choice to sanction the parolee and continue the individual's supervision or to enter the parolee into the revocation stream. Entering the revocation stream typically leads to reincarceration. But depending on the type of crime for which a parolee is arrested and the situational factors behind the arrest (among other factors), the sanctioning of the parolee may indeed include a transition into a DRC or other type of diversionary resource (e.g., a residential community program).

When parolees start misbehaving, parole officers are tasked with balancing whether they will likely jeopardize public safety or, if given another chance, whether they can complete the terms and conditions of their supervision successfully without (further) jeopardizing public safety. If the policy recommendations of this study were followed, however, then parole officers would have more limited options when making decisions about whether to continue a parolee's supervision or to enter the case into the revocation stream. Following Boyle et al.'s (2013) suggestions would cause parolees who are assessed as being of the highest risk of failure to be at a greater likelihood of experiencing these limitations on diversionary options. This would certainly result in increases in parole revocations and the reincarcerations that often stem from them (Clear and Schrantz, 2011). It seems as

though a trade-off is underlying Boyle et al.'s policy recommendations: potentially increase reincarcerations of parolees later (relative to the date on which the decision is made to transition the case into a DRC rather than revoke them) by transitioning them into a damaging resource or potentially increase revocations immediately by limiting diversionary options. Both options are undesirable.

The tricky part underlying Boyle et al.'s (2013) policy recommendations is getting parole agencies to realize that some of the answers to decreasing reincarceration rates tied to parole revocations may be to continue normal (or slightly ramped up) parole supervision rather than to transition cases into community programs. Interestingly, this study demonstrates that having parole officers grin and bear it with their problem cases does not lead to unfavorable results when contrasted with the DRC programmatic option. But, getting parole officers to press forward with problem cases in a world where diversionary options would be limited, if Boyle et al.'s suggestions are followed, would likely prove difficult. In addition to providing services to parolees, community program referrals allow for parole officers to get problem cases off of their caseload temporarily. As such, Boyle et al.'s results pose interesting questions about the selection processes that parole officers use to identify problem cases. Therefore, Boyle et al.'s findings may have broader implications about the abilities of parole officers to recognize problem cases that warrant being placed in the revocation stream in the first place. This area of research is in need of additional attention prior to recommending that a major diversionary resource not be used for those who will likely need them the most.

Thousands of New Jersey parolees are transitioned into DRCs every year for diversionary purposes. These resources, in addition to contracted residential treatment centers, serve as the primary means by which New Jersey parole officers divert parolees from the revocation stream. Thus, because of the potential impact that not using DRCs may have on reincarcerations stemming from parole revocations, it is likely a preferable option to assess diligently the quality of these programs and attempt to address gaps through training and monitoring rather than to unequivocally not use them for those of the highest risk of failure. This observation is especially apparent given that, if DRCs were not a part of an active criminological study and parole officers were not instructed by their supervisors (at the behest of a research team) to continue supervising problem cases on Phase I supervision, many of the parolees who would have otherwise been referred to a program would likely have been revoked and reincarcerated if the resource did not exist.

Finally, the policy recommendations are not overly congruent with the findings of the study. Only two of Boyle et al.'s (2013) outcomes were statistically significant, and these results showed that DRCs produce iatrogenic effects. However, the significant findings are only apparent when looking at short-term follow-up periods. When looking at the same findings over a longer follow-up, they are not significant. It is perplexing why such strong policy directions are suggested from these sorts of results, especially considering that they were generated by a single (yet rigorous) study.

Policy Action Steps

Boyle et al. (2013) conducted a well designed and insightful study that poses serious questions about the abilities of DRCs to “save” parolees who are experiencing difficulties while attempting to reintegrate back into their communities. Their policy recommendations, however, exceed their findings. Here, I put forth policy action steps that align with evidence-based correctional practices but pose considerably greater challenges for practitioners to accomplish than simply abandoning the use of DRCs as an alternative to reincarceration for high-risk offenders.

1. Target programmatic resources toward offenders who are actuarially assessed as high risk and attempt to make targeting proactive rather than reactive.

Perhaps the most enduring finding within evidence-based corrections literature is that programs should be targeted toward high-risk offenders. Along these lines, programmatic resources should not be squandered on low-risk offenders. Boyle et al.’s (2013) suggestion of experimentally evaluating the effectiveness of DRCs for low-risk parolees runs counter to decades of research about offender risk for recidivism. Transitioning low-risk offenders into high-intensity programmatic resources such as DRCs has been found to result in iatrogenic effects because they likely interrupt prosocial networks that make the offender low risk in the first place and because the programs may “contaminate” the low-risk offender by exposing them to higher risk offenders (Latessa, 2006; Lowenkamp and Latessa, 2004, 2005). Boyle et al.’s suggestion is especially perplexing given their theorizing about the potential contagion effects of DRCs. In line with Boyle et al.’s findings, programmatic resources should be targeted toward high-risk offenders. Decision makers should strive to arm themselves with results from actuarial assessments and knowledge about service networks so they will be in a position to refer offenders proactively to relevant services that fit their need and responsivity profiles. If supervision authorities are diligent about assessing program quality and holding their service partners accountable for the outcomes they help produce, they will likely be in a position to transition high-risk offenders more effectively into high-quality programs proactively, avoiding many of the reactive referrals that would otherwise be made during the course of supervision. Low-risk offenders should be referred to high-intensity programs only in situations where they are in serious danger of having their supervision term revoked. If public safety would not be jeopardized, then it may be more desirable to transition low-risk offenders into programmatic resources than to reincarcerate them for parole violations.

2. Use established actuarial instruments to assess program quality, provide training to address service gaps, and perform analyses of client outcomes in conjunction with assessments of service quality.

Tools such as the CPC can be used to assess programmatic quality actuarially. The end product of these assessments is the identification of specific gaps within a program (in terms of both content and capacity to deliver services) and reasonable suggestions for addressing these gaps. Parole agencies should procure the services of independent evaluators to assess programmatic quality and then work with programs to help them better align with evidence-based practices. This alignment should be a part of the normal discourse of program auditing. Program participant information should be gathered simultaneously so that assessments of programmatic quality can be linked with client outcomes.

3. Reassess program quality several times and compare measured service gaps from previous assessments with the current assessment.

The previous step should be an iterative process. Parole agencies should assess programmatic quality regularly. Programs that do not provide services that are informed by evidence-based practices should not continue to be funded. Those programs that are assessed consistently as being of poor quality in terms of their alignment with providing evidence-based services should be penalized and eventually shuttered if they continue to be noncompliant with evidence-based practices models.

4. Analyze service referrals in a broader reentry context.

More scholarly and practitioner attention should be paid to analyzing and tracking parolee compliance during the course of supervision. Explorations into the intermediate programmatic steps in relation to the violation-worthy behaviors that are exhibited by parolees should be pursued. Parole agencies should attempt to comprehensively track parolee compliance with supervision conditions and officer responses to noncompliant behaviors to assess more accurately whether and under what circumstances diversionary resources should be used. Additional explorations should be pursued that address follow-through by parole officers after programmatic resources have been geared toward parolees under their supervision. Community programs should not be viewed as the sole providers of reentry-related services. Parole agencies must be diligent about not only tracking the types of services that are geared toward their population while they are at community-based programs but also tracking how parole officers consume clinical progress and case management information that is gained while at programmatic resources. Broader ecological contexts should be explored in addition to the interaction of program quality and individual- and officer-level variables (Wright, Pratt, Lowenkamp, and Latessa, 2011).

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