Street Violence Crime Reduction Strategies:  
A Review of the Evidence

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EXECUTIVE SUMMARY

Despite evidence of gradually declining rates of violent crime over the last several decades, violence continues to pose a serious problem for many urban communities (Federal Bureau of Investigation, 2018). Indeed, recent trends in violent crime within the United States suggest violence is a chronic problem, producing substantial costs to communities and individuals, and requiring immediate response from a coalition of stakeholders. As such, finding effective interventions to target violence is essential for restoring communities and enhancing public health and safety. This literature review examines the available empirical evidence on a variety of police-led violence reduction strategies (offender-focused, place-based, and community-based), as well as community-led, public health-based violence prevention interventions. The purpose of this review is to summarize for practitioners, policy makers, and researchers the state of the evidence regarding the effectiveness of various approaches to reduce violence, highlight implications for practice (see Appendix A) and identify the remaining gaps in this knowledge needing to be addressed by future research.

Police–Led Violence Reduction Interventions

Offender-Focused Approaches for Violence Reduction

Offender-focused approaches for violence reduction concentrate police resources on a relatively small number of high-risk, chronic offenders to address violent crime. This review discusses six different offender-focused policing approaches, including traditional gang enforcement, firearm crackdowns, focused deterrence, project safe neighborhoods, custom notifications, and stop, question, and frisk.

Traditional gang enforcement strategies rely on suppression, social control, and legal sanctions to reduce gang violence (Decker & Curry, 2007). These approaches are based upon deterrence theory, whereby criminal behavior is presumed to decrease when gang members’ perceptions of the swiftness, certainty and severity of punishment for that behavior are increased (Klein & Maxson, 2006). The limited empirical evidence that exists does not support traditional suppression-only enforcement as an effective approach for reducing gang violence over the short or long term; in fact, it may actually strengthen gang cohesion and exacerbate gang-related criminal activity (Decker & Curry, 2000). Still, some scholars suggest that specialized units could improve police effectiveness in gang-related violence reduction by transitioning police response from a general deterrence orientation to a strategic problem-oriented approach (Braga, 2015). Furthermore, several argue that suppression can be one element of an effective comprehensive gang enforcement strategy. However, prevention and intervention elements addressing factors that contribute to gang membership and criminal activity must be incorporated within the strategy as well (Decker, 2008).

Police agencies often initiate aggressive enforcement designed to crackdown on violent offenders. One of the most well-known violent offender-focused crackdowns was Project Exile—a collaborative gun violence reduction effort that emphasized enhancing risks associated with illegal gun carrying by increasing federal prosecution of offenders, and thus enhancing...
sentences, for illegal gun possession. In addition to federal prosecution, Project Exile prioritized a public education campaign – advertised in print and electronic media – designed to reinforce deterrence messages pertaining to the illegal possession and use of firearms (McGarrell et al., 2013b). Although anecdotally declared a success, the limited empirical evaluation provides a mixed narrative of the efficacy of this strategy. It appears firearms crackdowns could produce meaningful declines in violent crime; however, additional research is needed before conclusions can be made.

Focused deterrence is an offender-focused violence reduction strategy born from the problem-oriented policing movement. Designed to alter offender behavior through a multi-faceted approach involving law enforcement, social service, and community-based action, focused deterrence initiatives are consistently found to be effective in reducing serious violent crime committed by gangs/criminally active groups, violence generated by street-level drug markets, and violent crimes committed by highly active individual offenders. Although not without limitations, the existing empirical evidence strongly suggests the positive short-term impacts of focused deterrence strategies on violent crime, leading researchers to encourage the inclusion of focused deterrence in the portfolio of violence reduction strategies.

Project Safe Neighborhoods (PSN) represents a substantial investment by the U.S. Department of Justice to address gun violence at the local level. Built upon other promising violence reduction strategies (i.e., Richmond’s Project Exile; Boston’s Operation Ceasefire), PSN was a collaborative problem-solving initiative involving a strategic, research-based model to reduce gun violence through enforcement, deterrence, and prevention. A series of case studies conducted in 10 jurisdictions observed to implement PSN in “a serious and significant fashion” suggest that PSN initiatives are a promising approach for gun violence reduction (McGarrell et al., 2009). More rigorous examinations of PSN impacts further bolster the evidence regarding the effectiveness of these initiatives (McGarrell et al., 2010; Papachristos et al., 2007). However, the sustainability of the effects of PSN initiatives in the long-term remain in question.

Custom notifications are routinely used within larger focused deterrence initiatives. Involving official visits by law enforcement officials to target individuals at-risk for violence, this violence reduction strategy evolved from tactics involving home visits, targeted street stops, and “knock and talks” such as those used in Boston’s Operation Night Light. Empirical evaluation of Operation Night Light and similar tactics has been limited. Indeed, custom notification strategies are often used in conjunction with broader focused deterrence strategies. As such, specific custom notification tactics have not been subject to a separate evaluation from the larger focused deterrence evaluations identified above. Still, the available research provides promising findings related to the efficacy of these programs in increasing accountability among supervised youth (Alarid & Rangel, 2018); although the limited evidence base precludes strong conclusions of the short- and long-term impacts of the strategy.

Finally, stop, question, and frisk (SQF) is an offender-focused violence reduction strategy involving frequent pedestrian stops in which suspects are questioned about their activities, frisked if possible, and often searched to facilitate the discovery of weapons (Weisburd & Majmundar, 2018). These programs are typically founded upon the assumption that SQFs will
deter potential offenders by enhancing the perceived consequences of criminal activity through the increased probability of being stopped and searched by the police. A small body of evidence suggests that SQF can produce statistically significant violent crime prevention benefits when focused upon high crime places and high-risk repeat violent offenders. The efficacy of SQF programs as a proactive policing strategy, however, is attenuated by criticism of the legality of such tactics (Floyd v. City of New York, 2013), as well as consistent observations that the systematic application of SQFs can have significant negative consequences for police-community relations. As such, SQF programs are best applied strategically within tailored enforcement approaches to mitigate violent crime within high crime micro places and among high-risk repeat offenders (Lum & Nagin, 2017).

**Place-Based Approaches for Violence Reduction**

Place-based approaches for violence reduction are founded upon observations that violent crime is spatially nonrandom and concentrated at particular places. Several theoretical perspectives support place-based policing approaches, including environmental criminology, rational choice perspective, routine activities theory, crime pattern theory, and deterrence theory. This review discusses two place-based policing approaches: hot spots policing and place-based investigations or place network investigations (PNI). Hot spots policing involves the focus of police resources on the most crime ridden micro-locations within a city. The rigorous evidence base of the impacts of hot spots policing interventions suggests these strategies produce modest crime prevention benefits and are likely to result in the diffusion of those benefits into areas near the high-crime places targeted by the intervention. Although not without limitations, the available research strongly supports the inclusion of hot spots policing interventions, particularly those that implement a problem-oriented approach, in the portfolio of evidence-based violence reduction strategies. In contrast, place-based investigations represent an emerging strategy for violence reduction designed to dismantle the crime place networks that provide the infrastructure for illicit activities. Founded upon opportunity theories of crime (i.e., environmental criminology) and leveraging effective practices for crime prevention (e.g. problem solving, situational crime prevention), place-based investigations represent a promising practice for the reduction of urban violence. Further research with rigorous evaluation is needed, however, to enhance our understanding of the crime prevention benefits of these interventions.

**Community-Based Approaches for Violence Reduction**

Police-led community-based approaches for violence reduction include strategies that aim to mobilize communities to participate in the crime control process. This review discusses three different community-based policing strategies: community-oriented policing, broken windows policing, and procedural justice policing. Community-oriented policing strategies focus on community involvement in the definition of problems and responses in the community, decentralization of police agencies, and a focus on problem-solving oriented strategies. Applications of community-oriented policing have been found to vary but follow this general framework overall. Empirical evidence for community-oriented policing supports a very limited impact on violence reduction. There is, however, evidence to suggest that community-oriented policing has a positive impact on community perceptions of law enforcement and police-
community relations, framing this strategy as a beneficial addition to other evidence-based policing strategies.

Broken windows policing, or disorder policing, is a police-led, community-based approach for violence reduction characterized by the focus of police interventions on the issues of physical and social disorder to prevent more serious crime. A review of the evaluation literature suggests that broken windows policing strategies, particularly those that incorporate a problem-solving approach, can have a meaningful impact on violent crime. Although additional research is needed to specify the types of broken windows policing interventions that are most effective in crime reduction, strategies that focus police attention on social and physical disorder appear to have modest effects on violent crime, encouraging their addition to the portfolio of evidence-based, police-led violence reduction strategies.

Finally, procedural justice policing focuses on building trust and legitimacy between citizens and law enforcement by focusing on the quality and fairness of processes the public experiences during encounters with the police. The theoretical framework underlying this strategy posits that when police exercise procedural justice in interaction with citizens, this increases citizens’ perceptions of police legitimacy, which enhance their likelihood of law-abiding behavior and cooperation with police. This review finds limited empirical evidence of the effects of procedural justice policing as a violence reduction strategy, but available studies indicate a positive impact on citizen’s perceptions of police legitimacy, which in turn may aid in the implementation and effectiveness of other violence reduction strategies.

Community-Led, Public Health Violence Prevention Interventions

Community-led violence prevention efforts apply a multi-faceted approach to violence reduction rooted in the public health model that considers violence a community problem rather than a solely individual one. Community-led approaches mobilize multiple stakeholders and community partners, which may or may not include law enforcement. Some initiatives that operate more independently from law enforcement have found benefits in gaining additional trust from communities that may have not otherwise been present with the involvement of police agencies. These approaches also benefit from the strategy of approaching violence from multiple levels of the social-ecological model (individual, relationship, and community). These approaches focus on community ownership of both problem identification and response selection and are adaptable to allow each community to tailor interventions to fit the specific needs of the community. This review highlights six community-led violence prevention strategies, including Communities that Care, Youth Violence Prevention Centers, Cure Violence, PROSPER, hospital-based violence intervention programs, and OJJDP’s Comprehensive Gang Model.

The Communities that Care (CTC) intervention is a violence prevention initiative involving the implementation of multiple evidence-based programs meant to improve community capacity to prevent violence (Fagan & Catalano, 2013). The CTC intervention mobilizes community stakeholders to take the lead in identifying their community’s most significant risks and selecting corresponding programs to adopt. Empirical evaluations using randomized control trial designs show generally positive findings related to the CTC prevention system in terms of reductions in
risk levels, problem behaviors, delinquency and violence, but mixed results with regard to their sustainability.

Youth Violence Prevention Centers (YVPC), established as part of the Center for Disease Control and Prevention in 1999, promote partnership between academic research institutions and a variety of other stakeholders including, hospitals, churches, schools, mental health agencies, and police departments. Researchers assist communities in selecting evidence-based intervention strategies based on factors such as community capacity for planning and delivery of the program, existing resources and partnerships, and the use and availability of data. Overall, initial evidence from YVPC initiatives that targeted multiple levels of the social ecological model suggest they are promising for preventing and reducing youth violence. The Flint, Michigan communities saw reductions in youth assaults and victimization reports and Robeson County, North Carolina saw increased self-esteem and improvements in mental health, decreases in violence and parent-child conflict, and decreases in delinquent friends through the use of YVPC initiatives.

Cure Violence (first developed as Chicago CeaseFire) is a community-based, public health approach to gun violence prevention that seeks to address violence among high-risk individuals while simultaneously altering community attitudes and norms toward gun violence. In all, the Cure Violence model highlights five components for an effective violence prevention strategy: (1) street outreach to at-risk youth; (2) public education; (3) community mobilization; (4) faith leader involvement; and (5) collaboration with law enforcement (Butts et al., 2015). Unique in its strategy, Cure Violence relies on specialized staff, called “violence interrupters” to monitor threats of violence in the community and directly intervene with identified high-risk individuals. While the initial implementation of the Cure Violence strategy in Chicago showed significant reductions in violence, evaluations of subsequent initiatives have returned mixed results.

The PROSPER (Promoting School-Community-University Partnerships to Enhance Resilience) initiative is a comprehensive community-based program aiming to reduce risky behaviors, enhance positive youth development, and strengthen families. PROSPER leverages the capacities of existing community partners including schools, community groups, social service and health agencies to provide evidence-based violence prevention programs in rural and semi-rural areas. Two longitudinal studies suggest PROSPER produces reductions in anti-social peer association and other anti-social behaviors as well as positive effects in parent-child relationships. However, evaluation research also highlights the importance of sustained technical assistance from academic partners for the implementation of the PROSPER intervention in the long term.

Hospital-based violence intervention programs are tertiary violence prevention programs that focus on reducing recidivism of violent injuries by intervening at the time of injury to address the needs of patients, the context of their social environment, and their involvement in the criminal justice system (Juillard et al., 2016). These programs typically include (1) brief interventions founded upon motivational interviewing techniques and (2) comprehensive case management carried out shortly after the violent injury. A recent systematic review of available research provides a mixed narrative regarding the effectiveness of hospital-based violence intervention programs. Still, results across studies suggest that these programs, particularly those that provide intensive case management services, can reduce incidents of re-injury and enhance patient
referred and use of services to facilitate a change in lifestyle (Mikhail & Nemeth, 2016). However, conflicting findings across available studies preclude strong conclusions regarding the general efficacy of these programs.

Finally, the Comprehensive Gang Model (CGM) of the Office of Juvenile Justice & Delinquency Prevention differs from other community-led approaches as it explicitly includes a law enforcement component. The CGM is based on five interrelated strategies for reducing gang-related youth violence: community mobilization, opportunities provision, social intervention, suppression, and organizational change and development. Initial evaluations of this approach in Riverside, CA and more recent evaluations in Los Angeles, CA and Richmond, VA showed moderate violence reductions. A number of initial and subsequent program evaluations found no significant effects; many of these initiatives, however, suffered from significant implementation failures that likely contributed to the lack of intervention effectiveness in some locations. The Los Angeles Gang Reduction and Youth Development (GRYD) initiative, which developed from the CGM and utilized existing community resources and capabilities to target gang violence, was associated with decreases in gang related fights, total homicides, and individual risk-levels.

**Discussion**

For many cities across the United States, urban violence is experienced as an epidemic, posing a significant threat to public health and safety. This violence is found to affect individuals, families, and communities through fatal and nonfatal injuries, impacts on mental health, heavy economic burdens, and the disruption of neighborhood life. Recognizing the continuing issue of urban violence, researchers, policymakers, and practitioners have re-emphasized the importance of identifying effective strategies for the prevention and reduction of violence.

Our review of the research literature included an examination of the available evidence regarding effective strategies for reducing violence and highlighted the broad portfolio of violence reduction approaches that may be used to enhance public safety and restore communities. Findings from the body of evidence reviewed within this document are summarized in two tables (see pages 54 and 56).

In summary, the available research provides a larger evidence base for police-led violence reduction strategies relative to community-led violence reduction strategies. In particular, police-led strategies that target specific people and places prone to violence often produce crime prevention benefits. Notably, newer and lesser studied interventions – such as place-based investigations and procedural justice policing – may represent promising approaches for the prevention of urban violence. Although evaluations of police-led, community-based approaches – such as community-oriented policing and procedural justice policing – provide limited insight on the violence reduction benefits of these strategies, it appears that community-based efforts by the police can facilitate police-community relations, public trust in police, and perceptions of police legitimacy; all of which have important implications for police effectiveness.

In contrast, there is a smaller evidence base for community-led, public health violence reduction initiatives. This is partially a product of the focus on longitudinal research designs that are
considerably more expensive and time-intensive to implement and evaluate. However, the available research suggests there are promising community-led strategies, particularly when implemented with a high degree of model fidelity and stakeholder collaboration. More research is needed, however, before strong conclusions can be made. The reviewed initiatives that partner with academic research teams involve a high level of methodological rigor and evidence-based practices that guide the entire intervention process – these community-research collaborations are crucial to progress in implementation quality and effectiveness of community-led initiatives.

**Elements of Effective Violence Reduction Initiatives**

Collectively, our review of this research, consistent with other reviews, identifies several key considerations for effective violence reduction (Eck & Maguire, 2000; Weisburd & Majmundar, 2018).

1. Violence is highly concentrated at micro places and among a small number of chronic offenders. Interventions that focus police and community resources on the behaviors of high-risk individuals and criminal opportunities at high-risk places are generally observed to effectively reduce violence, and crime and disorder more generally.

2. Effective interventions typically involve a proactive approach to violence reduction by addressing the underlying factors that produce violence and attempting to prevent the occurrence of violent crime in the first place.

3. Successful violence reduction strategies consider the issues of perceptions of legitimacy, community support, and cooperation across the planning, implementation, and assessment stages of the intervention, creating a feedback loop between agents of formal (e.g. the police) and informal social control (e.g. community residents) that will contribute to the strategy’s sustainability.

4. Successful violence reduction interventions are also observed to establish a “network of capacity” consisting of dense, productive relationships among the organizations/agencies involved in strategy implementation and plans for the sustainability of the intervention.

5. Effective interventions are observed to be founded upon theory – specifically, a well-defined and understood theory of change that can guide the implementation and assessment of the violence reduction intervention.

6. Successful violence reduction interventions incorporate partnerships involving the active engagement of community stakeholders (i.e., criminal justice and non-criminal justice stakeholders) that work together to develop a multidisciplinary comprehensive response to violent crime.

7. Effective violence reduction strategies incorporate research throughout the analysis of the violence problem, strategy development, implementation of the strategy, and assessment of the impacts of the strategy. Indeed, the use of research throughout the process of
violence reduction can facilitate the understanding of the underlying causes of violence within a community, encourage the use of evidence-based practices for violence prevention, and aid in model fidelity to those practices when implemented in new contexts.

Future Research

Although the available research supports some conclusions regarding the effectiveness of various police- and community-led violence reduction strategies, much remains to be learned. We turn to our review of the limitations of the current evidence base and important next steps for future research. First, many violence reduction strategies have not used rigorous methodologies, precluding strong conclusions in evaluations of their effectiveness. Recent trends in research leaning toward the use of more rigorous experimental or quasi-experimental designs for the evaluation of violence reduction strategies is encouraging. Related to this is the need for research designs to use multiple sources of data to measure violence beyond official crime data (e.g. emergency room data, self-report data), which provides for a more complete picture of violent incidents that might go unreported to police. Second, more research is needed to understand the theoretical mechanisms – the causal mechanisms of change – that violence reduction strategies are founded upon. In many cases, these mechanisms have not been systematically tracked (via process evaluations) or assessed, limiting our understanding of the causal mechanisms that facilitate the efficacy of different violence reduction interventions.

Implementation quality has not been evaluated routinely in previous research; this is a significant deficit in the literature as it has been suggested that fidelity to the treatment model and “depth of implementation” may play an important role in program effects. Process evaluations of model fidelity must accompany evaluations of effectiveness. More research is needed to pinpoint the elements of each violence reduction strategy, particularly multi-faceted approaches, that are most effective in producing violence prevention benefits, and whether the best approach for addressing violence differs across locations, people, or groups. Understanding the most effective elements can reduce costs associated with the implementation and sustainment of strategies over time. Future research should also better incorporate longitudinal research designs to improve our understanding of the long-term sustainability of violence prevention/reduction benefits produced by these strategies over time.
I. INTRODUCTION

Despite evidence of gradually declining rates of violent crime over the last several decades, violence continues to pose a serious problem for many urban communities (Federal Bureau of Investigation, 2018). Indeed, the aggregate reductions of violence in the United States tend to mask the variability and impact of violence among communities, families, and individuals (Wilson & Chermak, 2011). Homicide remains a leading cause of death for African American men, and the third leading cause of death for individuals between the ages of 15 and 24 (Abt, 2019; David-Ferdon et al., 2016). Furthermore, in recent years, violent crime rates have risen in the United States, with a 6.8 percent increase observed from 2013 to 2017 (Federal Bureau of Investigation, 2018). Additionally, from 2015 to 2018 violent victimizations – both reported and unreported – increased from five million to 6.4 million (Bureau of Justice Statistics, 2019).

For urban communities that experience high rates of violence, the problem of violent crime is often described as an epidemic, as acts of violence seem to spread within communities similar to illness. As an epidemic, the pervasiveness of violent crime produces substantial costs. Outside of potential injury or loss of life among violent crime victims and offenders, a single violent act within a community can lead to additional violence (e.g. retaliatory gang/group violence). This violence is found to contribute to serious physical and mental health problems for victims and offenders, as well as create a heavy economic burden on the families and communities that are affected (Prevention Institute, 2015). Financial burdens associated with violent crime are also found to extend to violent offenders, as they and their families bear the cost of punishment and (often) incarceration (e.g. offenders’ costs to health, employment, earnings after incarceration; families’ costs to income, housing, and reliance on public assistance (Government Accountability Office, 2017; Lugo et al., 2018). Collectively, these costs of violent crime often exceed the capacity of public healthcare and assistance.

The trends in violent crime within the United States suggest violence is a chronic problem, producing substantial costs to communities and individuals, and requiring immediate response from a coalition of stakeholders. Finding effective interventions to target violence is essential for restoring these communities and enhancing public health and safety. In this vein, this literature review provides an overview of the leading interventions to combat what is typically described as “street violence” in communities. Within this review, we define violence as those acts that have the potential to cause death or serious injury, with a specific focus on violence that occurs on the street or in other public spaces in urban areas and that typically involves gun or gang-related violence (Abt, 2019). Understanding the origins and context of violence are important to identifying effective responses. This point is particularly salient given that the circumstances that produce violent crime are also exacerbated by violence, augmenting the cycle of poor public health and safety (Abt, 2019; Prevention Institute, 2015).

The multi-faceted roots of urban violence require the use of a multidisciplinary perspective to respond effectively. For this reason, the current review examines a variety of police-led violence reduction strategies, as well as community-led, public health-based violence prevention strategies.
interventions. Police-led strategies include efforts that focus police resources on violent offenders, places, and communities. Community-led strategies, rooted in the public health model for violence prevention, include a number of comprehensive programs that target individual community’s unique needs through the application of multiple interventions designed to target various risk factors for violence. For each violence reduction intervention, we provide a general description of the strategy, briefly explain its theoretical foundation, and summarize the current state of the empirical research regarding its effectiveness in reducing violence. When possible, practical implications produced from the available research are discussed (see Appendix A). Although a number of the strategies are promising, caution should be used, as there are noted practical and methodological limitations of each intervention. In the conclusion, we offer guidance for police practitioners based on the current state of the empirical evidence and recommend directions for future scholarly research to continue to advance our understanding of the most effective violence reduction strategies.
II. POLICE-LED VIOLENCE REDUCTION INTERVENTIONS

Over the last several decades, police agencies across the United States have increased their attention on proactive policing strategies that seek to prevent or reduce crime in general, and violence specifically, in contrast to primarily reactive approaches to crime control (Weisburd & Majmundar, 2018). Considerable scholarly attention has examined the impact of these proactive police-led strategies on reducing violent behavior. The most common proactive policing strategies focus on prevention by addressing underlying factors related to: (1) violent offenders or individuals at high risk of offending, (2) places where violent incidents clusters, and/or (3) community factors and relationships between the police and the public (Weisburd & Majmundar, 2018). This section describes several police-led strategies, presenting the empirical support for their capacity to reduce violence and outlining areas for future research.

A. Offender-Focused Approaches for Violence Reduction

Offender-focused approaches for violence reduction target police resources toward a relatively small number of high-risk, chronic offenders to address violent crime (Weisburd & Majmundar, 2018). This approach is founded upon empirical evidence demonstrating that a large proportion of crime is committed by a small proportion of offenders (Blumstein et al., 1985; Farrington & West, 1993; Howell et al., 1995; Wolfgang et al., 1972). To maximize efficiency and effectiveness of the police, resources are focused on the criminal actions of the relatively small group of individuals that drive violent crime rates within their jurisdiction. This section begins with a description of traditional gang enforcement strategies routinely implemented by police agencies, followed by alternative offender-focused strategies, including: firearm crackdowns, focused deterrence, Project Safe Neighborhoods, custom notifications, and stop, question, and frisk.

1. Traditional Gang Enforcement

Traditional gang enforcement strategies rely on suppression, social control, and legal sanctions to reduce gang violence (Decker & Curry, 2003; Klein, 1995). This approach is rooted in deterrence theory, whereby offending behavior is presumed to decrease when gang offenders’ perceptions of the swiftness, certainty and severity of punishment for that behavior are increased (Fritsch et al., 1999; Klein, 1993, 1995; Klein & Maxson, 2006). It was believed that if the deterrent effect of police practices was ineffective, the enforcement response should be more punitive (Decker, 2008). Many urban police departments initiated aggressive gang crackdowns like the Los Angeles Police Department (LAPD)’s Operation Hammer, where over a thousand people were arrested in just two days (Klein, 1995). Although no empirical evaluation regarding its impact on violence reduction was ever generated, the operation is considered to have backfired because the swiftness, certainty, and severity of the intervention were ill-conceived and poorly executed; over 90% of those arrested were released without charges, a significant percentage were not gang members, and only a very small percent of those arrests resulted in felony charges being filed (Klein, 1995). Furthermore, law enforcement agencies lack the operational capacity to eliminate or even reduce gang-related activity over a sustained period of time and gang members know that (Klein, 1993, 1995). The difficulty with a general deterrence-based approach to gang violence is that it assumes gang members will react rationally to the
threat of punishment and that they make individual decisions separate from the group norms of
the gang (Klein, 1995; Maxson et al., 2011). Rather than deter gang violence, these traditional
broad sweeping police responses to gangs may instead increase violence because gang cohesion
is reinforced by the labeling and shaming associated with police opposition (Fritsch et al., 1999;
Klein, 1995; Klein & Maxson, 2006).

Prior to the 1980s, the police response to gangs was typically handled by existing organizational
units (e.g. patrol or criminal investigations), but this changed dramatically with the creation of
specialized gang units (Katz & Webb, 2006; Valasik et al., 2016). The proliferation of these units
is tied to three factors: (1) a rise in gang violence, (2) public and political pressure on police
organizations based on perceptions of gang violence, and (3) the availability of federal funds to
combat gang violence. Decker (2007) noted that the findings of three longitudinal studies
provide consistent evidence that gang membership is associated with increased frequency and
seriousness of criminal behavior compared to non-gang members. The greater propensity of
gangs to use violence also demands a different type of response by police than other criminal
offenders (Decker, 2007). By centralizing the responsibility for responding to gangs within a
single organizational unit, police agencies argued that increased efficiency in reducing gang
violence would result because these officers could specialize and gain a better understanding of
local gang problems and develop appropriate responses (Katz, 2001; Katz & Webb, 2006;
Valasik et al., 2016; Weisel & Shelley, 2004).

It is important to note, that this logical explanation is largely unsupported; the creation of gang
units was influenced considerably by public, political, and media pressure than the reality of
gang problems (Katz, 2001; Katz et al., 2002; Weisel & Shelley, 2004). Research has
demonstrated that in many communities, the perceived gang problem did not accurately match
the objective gang problem and may not have warranted the creation of a specialized unit (Katz,
2001; Katz & Webb, 2006). Nevertheless, community and departmental pressure often led police
executives to create specialized units even in the absence of a need. Likewise, researchers found
that the increase in federal funds available for police agencies to combat gangs was associated
with greater likelihood of establishing a specialized gang unit (Katz et al., 2002; Katz & Webb,
2006; Ratcliffe et al., 2017).

These specialized units were generally considered to focus on four primary activities: (1)
gathering and tracking gang related intelligence, (2) gang investigations, (3) gang suppression,
and (4) gang prevention (Braga, 2015; Weisel & Shelley, 2004). The degree to which the unit
was expected to focus on any one of these practices varied across police departments, which
typically reflected the perceived nature of the agency’s gang problem (e.g. size and number of
gangs, drug trafficking, violent crime, level of organization) and competing internal and external
expectations (Katz, 2001; Katz & Webb, 2006; Valasik et al., 2016; Weisel & Shelley). The
traditional gang enforcement approach would suggest that suppression is given primacy, and the
other practices facilitate it (Braga, 2015).

Research examining the effectiveness of traditional gang enforcement strategies is limited, but
some have employed quasi-experimental designs. These studies demonstrate mixed findings, but
largely show no impact on violent crime or adverse effects of increased violence and other gang-
related behavior. For example, one study showed that arrest increased gang members’ offending
behavior and the likelihood of non-gang youth joining gangs (Wiley et al., 2017). Another comparative case study of two gangs in Chicago explored the effect that arresting gang leaders has on violent crime; one leader’s removal had no effect on violent crime rates because new leadership was quickly established, while the other leader’s arrest produced a short-term increase in violent crime as rival gangs competed for territory where the affected gang temporarily retreated (Vargas, 2014). Finally, a cross-sectional study utilized interviews to assess respondents’ self-reported future intention to commit crimes based on their perceived threat of the severity and certainty of legal punishment (Maxson et al., 2011). While this study focused on nonviolent offenses, it still demonstrates little utility for relying on general deterrence approaches with gang members (e.g. no effect of severity of punishment on the intention to commit any of the offenses, and only a positive modest effect for certainty). Katz and Webb (2006) offer several explanations for the ineffectiveness of specialized gang units. They found that specialized gang units generally lacked guidance, supervision, and were isolated from their own organizations, as well as the communities they served. Reactive suppression efforts were understood by the gang unit officers to be their focus, and there were few organizational controls to counter this approach, despite the fact that these activities were not perceived as being effective by anyone outside of the gang units. Gang units often were not engaged in problem-oriented policing or proactive efforts to address gang-related crime.

Notably, a small number of studies have also found modest, but positive, impacts on gang violence using quasi-experimental designs. Specifically, this research has shown reductions in violence associated with aggressive curfew and truancy enforcement in Dallas (Fritsch et al., 1999) as well as violent crime control benefits produced from an FBI-led gang takedown in Los Angeles (Operation Thumbs Down; Ratcliffe et al., 2017). Specifically, Ratcliffe and colleagues (2017) observed reductions in gang violence were sustained for nine months after the operation. Similarly, Fritsch and colleagues observed statistically significant decreases in gang violence during the implementation of the Dallas Police Department’s anti-gang initiative.

The empirical evaluation of traditional gang enforcement efforts to reduce violence is hampered by a number of significant limitations. First, the methodological rigor of research to date has largely relied on quasi-experimental research designs and case studies of single departments, limiting the generalizability of any findings related to initiatives to reduce gang violence (Katz & Webb, 2006, Klein, 1995, 2011). Strong research designs are made more important by the fact that violent crime rates naturally experience peaks and valleys, which could obfuscate real impacts of enforcement in less rigorous research designs (Klein, 2011). Second, the majority of research has focused on street gangs in large urban areas, the findings of which may not translate to midsized or smaller cities and could result in inaccurate assessments of the presence and extent of gang problems in these smaller locations (Archbold & Meyer, 1999). Third, researchers have only recently begun to consider how interventions targeting particular gangs may affect the violent activity of other gangs with whom they collaborate or compete; further research is needed to explore this potential adverse effect of gang enforcement (Vargas, 2014).

Perhaps the most important limitation of research examining gang violence is the quality of data on which these studies rely. Several scholars note the dearth of reliable information on basic characteristics of gang activity (i.e., the number of gangs and their members, types of criminal involvement, relationships between gangs) (Wiley et al., 2017). Weisel and Shelley (2004) argue
that gang data often reflects police documentation practices rather than actual gang activity. Further, it is well documented that definitions and standards for classifying groups as gangs vary by jurisdiction, which limits comparisons across police agencies, both of gang problems and effective responses (Fritsch et al., 1999; Klein & Maxson, 2010; Wiley et al., 2017). On the other hand, researchers offer support for the claim that gang intelligence and information tracking systems can accurately identify gang members and consistently distinguish them from non-gang member youth, which should provide more reliable assessments of the nature of local gang activity on which to develop effective responses (Decker & Curry, 2000; Katz et al., 2000).

Police agencies must develop effective methods for responding to gang violence that consider whether they are likely to cause more negative consequences than positive (Klein, 2011). Studies of suppression-based gang interventions have consistently shown the likelihood of their adverse effects: increased gang cohesiveness, increase likelihood of joining gangs among non-gang youth, and heightened violence among rival gangs following a police crackdown (Klein, 1993, 1995; Vargas, 2014; Wiley et al., 2017). Second, the definitional issues described above may exacerbate issues related to net widening (Decker & Curry, 2000; Wiley et al., 2017). Police agencies should standardize the criteria by which individuals are identified for inclusion in gang tracking systems and not intensify the harms related to arrest unnecessarily (Archbold & Meyer, 1999; Katz et al., 2000; Wiley et al., 2017). Police agencies must also ensure that local circumstances are accounted for, as reliable indicators of gang involvement can vary by location (Archbold & Meyer, 1999). Finally, when gang interventions are perceived as arbitrary or discriminatory, as many aggressive and punitive enforcement efforts often are, they can create or aggravate already strained police community relations (Klein, 1993, 1995).

In sum, the limited empirical evidence does not support traditional suppression-only enforcement as an effective approach for reducing or deterring gang violence over the short or long term; in fact, it may actually strengthen gang cohesion and exacerbate gang-related criminal activity (Decker & Curry, 2000; Klein, 1993, 1995; Wiley et al., 2017). Nevertheless, some researchers offer promise that specialized units could improve their effectiveness by transitioning from a general deterrence orientation to a problem-oriented approach that is more strategic (Braga, 2015; Decker, 2007; Katz & Webb, 2006; Weisel & Shelley, 2004). This is important to consider as many communities lack the capacity or resources outside of the police agency to confront gang-related violent crime and other criminal activity (Decker, 2008). Finally, several scholars argue that suppression can be one element of an effective comprehensive strategy, but prevention and intervention elements must also be integrated in order to address social problems that contribute to gang membership and criminal activity in the first place (Braga, 2015; Decker, 2008; Fritsch et al., 1999; Klein, 1995). These types of approaches are discussed in later sections of this review.

2. Firearm Crackdowns

Police agencies often initiated saturated enforcement focusing on one aspect of the crime triangle: offender crackdowns. One of the most well-known offender-focused crackdowns on carrying or using firearms was Project Exile. Implemented in Richmond, Virginia in 1997, Project Exile was a collaborative gun violence reduction effort that emphasized enhancing risks associated with carrying illegal guns by increasing federal prosecution of offenders, and thus
enhancing sentences, for illegal gun possession. By increasing the penalties for firearm-related offenses, Project Exile aimed to deter firearm carrying and use. In turn, sentencing individuals to longer prison stays for firearm-related offenses meant to reduce gun violence through the incapacitation of violent felons (Rosenfeld et al., 2005). In addition to federal prosecution, Project Exile prioritized a public education campaign – advertised in print and electronic media – designed to reinforce deterrence messages pertaining to the illegal possession and use of firearms (McGarrell et al., 2013b).

Anecdotally, Richmond’s Project Exile was declared a “dramatic success” due to an observed 40% reduction in gun homicides in the city from 1997 to 1998 (Raphael & Ludwig, 2003, p. 252). Notably, these observations encouraged the adoption of Project Exile programmatic elements to other violence reduction initiatives (see discussion of Project Safe Neighborhoods, below). Empirically, however, Project Exile has been subject to few evaluations and those that exist provide contrasting narratives regarding its efficacy (see Raphael & Ludwig, 2003; Rosenfeld et al., 2005). Raphael and Ludwig (2003) first assessed the impact of Project Exile by examining homicide trends in Richmond during the 1980s and 1990s relative to trends in other cities. These researchers found little evidence to support claims that the program produced reductions in firearm related homicides or overall homicide rates, observing that the reduction in homicide rates aligned with declines observed in high-crime cities nationwide and, thus, likely represented a regression to the mean. As such, Raphael and Ludwig (2003) concluded that, “…almost all of the observed decrease probably would have occurred even in the absence of the program” (p. 252).

In contrast, challenging the methodology employed by Raphael & Ludwig (2003) in their study of Richmond’s homicide trends, Rosenfeld and colleagues (2005) found the decline in homicides in Richmond to be significantly greater during the Project Exile intervention period. Specifically, using hierarchical generalized linear models with panel designs to compare homicide rates from 1992 to 2001, Rosenfeld et al. (2005) found Richmond’s firearm related homicide rates to exhibit a 22% yearly decline, although the average reduction in homicides for other U.S. cities (with a population of 175,000 or more in 1990) was about 10% per year. This observed difference was statistically significant. Citing the inclusion of other determinants of homicide trends in their analyses (e.g. social and economic disadvantage, population density) as the primary reason for the difference in findings from prior research, Rosenfeld et al. (2005) assert that Richmond’s Project Exile produced meaningful violence reduction benefits.

### 3. Focused Deterrence

Compared to other offender-focused violence reduction strategies, focused deterrence strategies – (also referred to as “pulling levers” and “group violence interventions” – have generated a tremendous amount of practitioner and researcher attention (Engel, 2018). Focused deterrence strategies are designed to alter the behaviors of chronic violent offenders through: (1) direct communication regarding the consequences of involvement in violent crime and (2) the strategic application of enforcement and social service resources to target violent social networks. First developed in the mid-1990s to address serious youth violence produced from conflicts between criminally active groups/gangs in Boston, Massachusetts (i.e., “Operation Ceasefire”; see Braga et al., 2001; Kennedy et al., 1996), practitioners, policymakers, and researchers have adapted and
implemented the focused deterrence approach in cities plagued by violence across the United States and, in a more limited capacity, across the world.

Following the Boston “Operation Ceasefire” model, these focused deterrence strategies use a problem-oriented framework in which recurring violent crime problems are identified and analyzed, followed by the development of tailored responses based on the local context and operational capacities of law enforcement, social services, and community organizations (Braga & Weisburd, 2015). Specifically, focused deterrence strategies are typically comprised of six key components (Kennedy, 2006, 2019), including: (1) identifying a specific crime problem; (2) assembling an interagency enforcement group, often including local police, probation and parole, state and federal prosecutors, and federal law enforcement agencies; (3) conducting research to identify key offenders and groups of offenders, as well as the context and patterns of their behavior; (4) developing a tailored enforcement operation directed at those offenders/groups, using any and all legal tools to deter the continuation of violent behavior; (5) matching enforcement efforts with social services and community resources directed at the targeted population; and (6) communicating directly and repeatedly with offenders to let them know they are under heightened scrutiny, highlight behaviors that will get special attention and what increased enforcement actions will follow, and explain what they can do to avoid enforcement action.

Although individual focused deterrence strategies are tailored to specific crime problems occurring in particular jurisdictions, each strategy shares underlying prevention mechanisms that are believed to impact crime. Indeed, the strong theoretical model for the effectiveness of focused deterrence “adds weight to the empirical evidence” described in greater detail below (Braga et al., 2018, p. 210). The theoretical underpinnings of focused deterrence strategies lie primarily with their namesake: deterrence theory. However, recent discussions have also highlighted other complementary mechanisms within these strategies, including situational crime prevention, collective efficacy, and procedural justice/police legitimacy, that are believed to affect violent crime (Braga et al., 2018; Kennedy, 2019).

Focused deterrence strategies capitalize on the ability of the police to enhance the certainty of apprehension to deter future offending among high-risk individuals and groups/gangs. A key element of focused deterrence is the communication of a direct “retail deterrence” message to high-risk violent offenders, making explicit the “cause-and-effect” connections between violent behavior and the response of authorities. As such, these strategies aim to prevent crime by advertising the increased risks of apprehension associated with participating in violence, often using the group context from which violence emerges to spread this deterrence message (Braga et al., 2018; Tillyer et al., 2012).

Situational crime prevention techniques are also often incorporated within focused deterrence strategies to reduce the opportunities for criminal offending (Braga & Kennedy, 2012). Specifically, extending guardianship, enhancing natural and formal surveillance in communities, leveraging the influence of place managers, and reducing the anonymity of offenders augment the law enforcement levers that can be used to discourage high-risk offenders’ involvement in crime (Braga et al., 2018). Additionally, focused deterrence strategies aim to divert offenders from violent crime through the provision of alternate, prosocial opportunities (Braga et al.,
2018). Participating offenders are provided access to employment, treatment, and housing assistance, among other services, to facilitate their separation from their violent lifestyle.

Additionally, many focused deterrence strategies are observed to leverage community collective efficacy by emphasizing engagement with the community and incorporation of community members’ insights in the development of the specific strategy (Braga et al., 2018). Finally, as the application of focused deterrence strategies has evolved, researchers have recognized the critical importance of offenders’ perceptions of procedural justice and police legitimacy for the successful implementation of these initiatives. Specifically, lessons from procedural justice and police legitimacy research have encouraged researchers and practitioners to frame their messages to and interactions with offenders in a manner that emphasizes respect, fairness, and transparency, with the ultimate goal of generating greater “buy-in” from the offender population (see Papachristos & Kirk, 2015).

In short, focused deterrence strategies target changes in offender behavior by implementing a focused, multi-faceted strategy involving law enforcement, social service action, and community mobilization (Kennedy, 2008, 2011). The defining characteristics of these strategies include direct communication of sanction risks to targeted offenders or criminal groups, the offering of social service assistance to the same offenders or groups, and incorporation of the “moral voice” of communities to create a compelling deterrent for specific behaviors among high-risk groups and individuals (Kennedy, 2019). Importantly, these strategies build upon recent theorizing and research evidence on police innovation demonstrating the efficacy of focused intervention and expansion of the tools of policing in reducing crime and disorder (Braga et al., 2018; Weisburd & Eck, 2004).

a. Empirical Evidence

A growing number of evaluations have highlighted the impact of focused deterrence strategies in reducing urban violence. Systematic reviews and meta-analyses of this body of research provide support for the inclusion of focused deterrence within the broader portfolio of evidence-based successful violence reduction strategies. This section presents the empirical findings produced from the systematic reviews and meta-analyses of the available evaluation research, highlighting the types of focused deterrence initiatives identified in this research, as well as their respective effects on violence. This discussion is followed by consideration of key observations pertaining to the displacement of violent crime, diffusion of crime control benefits, and sustainability of crime control effects produced by focused deterrence strategies.

In their initial Campbell Collaboration systematic review of 10 quasi-experimental evaluations assessing focused deterrence initiatives (produced from 2001 to 2010), Braga and Weisburd (2012) identify three basic types of focused deterrence programs. The most common mimics Boston’s Operation Ceasefire by focusing on reducing violence produced by gangs and/or criminally active groups through a coordinated criminal justice, social service, and community effort. The second type of focused deterrence intervention involves reducing crime produced by street-level drug markets – generally referred to as “drug market interventions” (DMI) – by identifying street-level drug dealers, immediately apprehending violent drug offenders, and suspending criminal cases for non-violent drug dealers. Finally, a smaller number of focused
deterrence initiatives aim to prevent repeat violent offending among high-risk individuals by focusing actions on the most dangerous offenders within a jurisdiction, including direct communication with targeted offenders regarding the unacceptability of violent offending and formal notice that future violent offenses will be followed by focused legal attention.

Within their initial systematic review and meta-analysis, Braga & Weisburd (2012) found that these focused deterrence strategies were associated with statistically significant crime reductions in nine of the 10 quasi-experimental evaluations, producing an overall mean effect size of .604. Although this initial review provided promising results regarding the evidence-base for the effectiveness of focused deterrence strategies, Braga and Weisburd (2012) cautioned overstating the impacts of these initiatives in the absence of randomized experimental evaluations.

An updated systematic review and meta-analysis conducted by Braga and colleagues (2018) identified 24 quasi-experimental evaluations of focused deterrence strategies conducted from 2001–2015. Although no randomized controlled trial evaluations were found, this systematic review reveals the empirical evidence base is comprised of a growing number of rigorous quasi-experimental evaluations in which matched comparison groups are used (Braga et al., 2018). In 19 of the 24 studies, researchers reported the implementation of the focused deterrence program to be associated with statistically significant crime reduction effects on the targeted crime problem. Overall, Braga and colleagues (2018) found a statistically significant, moderate crime reduction effect (.383, p < .05) associated with the implementation of focused deterrence strategies; although, the specific effect size varied by program type. Specifically, the strongest crime reduction effects are produced by those focused deterrence initiatives designed to reduce serious violence by gangs or other criminally active groups (.657, p < .05). In turn, strategies developed to control recurring criminal behavior by repeat offenders (.204, p < .05) and to reduce crime/disorder associated with overt street drug markets (.091, p < .05) generate more modest crime prevention effects. Notably, the smaller mean effect size for DMI programs is attributed to threats to the integrity of the focused deterrence treatment. DMI programs that were implemented with higher fidelity reported larger overall crime reduction impacts (i.e., mean effect size for DMI programs with higher fidelity .184, p < .05).

Notably, the estimated mean effect size for the previous iteration of the systematic review and meta-analysis was larger (.604) than the updated review (.383). This difference is attributed to the greater prevalence of rigorous evaluations using quasi-experimental designs with higher levels of internal validity. Indeed, within the updated systematic review, the reported effects were found to be smaller for those focused deterrence strategies evaluated by more rigorous research methodologies, causing Braga and colleagues (2018) to conclude, “As the quality of program evaluations improve, the impacts of focused deterrence programs seem to be much more modest relative to the large violence reduction and quality-of-life improvements described in earlier accounts” (p. 232).

In addition to assessing the overall impact, for any evaluation of the crime control impact of policing strategies, it is important to consider the potential of crime displacement – the relocation of crime (from one place, time, target, offense, tactic, or offender to another) – as well as the diffusion, or spread, of crime control benefits beyond the areas targeted by a crime prevention intervention (Guerrete & Bowers, 2009). In their updated systematic review, Braga and
colleagues (2018) identified five studies that conducted tests of possible crime displacement and diffusion of crime control benefits. Notably, no evaluation reported significant crime displacement effects in areas surrounding the target of the intervention, but two studies reported noteworthy findings related to the diffusion of crime control benefits. Specifically, in their evaluation of Operation Ceasefire in Los Angeles, Tita and colleagues (2004) found that non-targeted rival gangs in surrounding areas matched or exceeded the reduction in crime (violent, gun, and gang) observed among the targeted gangs over a six-month pre-post period, which they suggested might indicate that the effects of police suppression of criminal activity by members of one gang could extend to rival gangs. These effects are possibly a product of the social ties across gangs in Los Angeles, or a function of fewer feuds between targeted and non-targeted gangs (Tita et al., 2004). Similarly, in their analysis of Boston Ceasefire II, Braga, Apel, and Welsh (2013) found the focused deterrence strategy created “spillover” deterrent effects within non-targeted gangs that were socially connected to the targeted gangs through alliances or rivalries. Specifically, total shootings involving these gangs decreased by 24.3% relative to total shootings involving matched comparison gangs. These findings suggest that “vicariously treated” gangs can be deterred from violent crime by the treatment experiences of their allies and rivals (Braga et al., 2013).

Although focused deterrence strategies are observed to produce statistically significant reductions in violent crime (Braga et al., 2012; Braga et al., 2018), these crime control effects are typically found to diminish over time. Researchers highlight a number of barriers to sustained implementation that may explain the limited long-term effects of focused deterrence initiatives (Braga et al., 2018). Common barriers to successful implementation include, though are not limited to, lack of leadership, poor interagency communication and coordination, limited involvement of key community members, uncertain identification of key offenders or offender groups, uncertain enforcement actions (e.g. tendency to return to traditional enforcement strategies, failure to follow-up on enforcement promises), limitations in resources assigned to initiative activities, and political barriers (see Corsaro & Brunson, 2013; Delaney, 2006; Fox et al., 2015a; Grunwald & Papachristos, 2017; Kennedy & Braga, 1998; Saunders et al., 2016). These challenges to implementation undermine the sustainability of focused deterrence initiatives, as well as the overall crime control efficacy of the strategies (Braga et al., 2018; Corsaro & Engel, 2015; McGarrell et al., 2010; Saunders et al., 2017).

In recent discussions regarding the sustainability of crime control effects, researchers have considered limitations in the long-term novelty of the focused deterrence approach. For example, finding diminishing crime control effects associated with the Kansas City No Violence Alliance (a program characterized by robust implementation and fidelity) at 12 months post-intervention, Fox and Novak (2018) suggest that offenders may become familiar with and adapt to various aspects of the focused deterrence strategy over time. The potential for adaptation among the targeted population emphasizes the importance of continuous problem analysis and response assessment in the extended application of focused deterrence initiatives (Fox & Novak, 2018). See Appendix A for a list of practical implications produced from the extant research literature.
b. Research Limitations

The review of the research evidence suggests that focused deterrence strategies can be effective in controlling violent crime. Although these findings are encouraging, several limitations to the available research should be acknowledged and explored in future studies. First, the small number of studies and the prevalence of weaker research methodologies used for evaluation contributes to skepticism regarding the impact of focused deterrence on violence reduction. Indeed, the available research suggests that the observed impacts of focused deterrence initiatives on crime are more modest when evaluated using research designs with higher levels of internal validity (Braga et al., 2018). Still, the recent trend towards rigorous quasi-experimental designs in the study of crime control benefits associated with focused deterrence strategies provide greater confidence in evaluation findings, which consistently suggest the approach reduces crime.

Future research investment should be made in the rigorous evaluation of focused deterrence strategies, including the investigation of the theoretical mechanisms of the strategy and identification of key activities associated with crime reduction. Specifically, more research is needed to understand the theoretical mechanisms underlying focused deterrence strategies – particularly the mechanisms beyond deterrence (e.g. collective efficacy, procedural justice and police legitimacy) (Braga et al., 2018; Braga et al., 2019a). Although it is argued that focused deterrence initiatives can enhance collective efficacy, as well as perceptions of procedural justice and police legitimacy within the targeted community (e.g. Kennedy, 2019), no evaluation has directly assessed these community-related outcomes (Weisburd & Majmundar, 2018). Similarly, more work is needed to pinpoint which elements of focused deterrence strategies are most important in producing the observed crime reduction effects. Although few studies have begun to unpack the “black box” of focused deterrence initiatives (e.g. Corsaro & Engel, 2015; Engel et al., 2013; Hamilton et al., 2017; Papachristos et al., 2007; Wallace et al., 2016), uncertainty regarding which program elements are most significant in generating observed crime reduction effects remains (Braga et al., 2018; Weisburd & Majmundar, 2018).

Finally, comparative research is needed examining the application of focused deterrence strategies in non-U.S. settings. Notably, only one evaluation occurring outside of the United State (Glasgow, Scotland; Williams et al., 2014) was identified in Braga and colleagues’ (2018) systematic review. Advancing this line of inquiry would speak to the generalization of focused deterrence strategies in settings beyond urban environments within the United States.

4. Project Safe Neighborhoods (PSN)

In 2001, the U.S. Department of Justice developed a comprehensive program intended to address gun violence at the local level. This program, known as Project Safe Neighborhoods, built upon promising approaches for violence reduction that had emerged in the 1990s (e.g. Boston’s Operation Ceasefire, Richmond’s Project Exile; see discussion above) to design a collaborative problem-solving initiative involving a strategic, research-based model to reduce gun violence through enforcement, deterrence, and prevention (McGarrell et al., 2009). As a federally funded initiative, PSN aimed to bring federal, state, and local law enforcement together with researchers and community partners to develop context-specific gun violence reduction strategies to the
communities plagued by high rates of gun violence (Grunwald & Papachristos, 2017; Papachristos et al., 2007). Indeed, Congress allocated more than $1.1 billion among the 94 federal court districts across the nation to develop PSN strategies fitting within their local legal contexts. In each district, an interagency taskforce was convened to assess the primary factors producing gun crime within the jurisdiction and develop strategies tailored to these factors to address violence (McGarrell et al., 2013b).

Although, PSN is inherently designed to vary by local contexts, each initiative emphasized five core components, including partnerships, strategic planning and research integration, training, outreach, and accountability (McGarrell et al., 2009). Following this framework, several intervention and prevention strategies emerged across PSN sites. For example, using the focused deterrence model, data were used to identify high-risk, repeat violent offenders upon whom enforcement resources would be concentrated. Deterrence and incapacitation were often further emphasized through the enhanced threat of federal prosecution and lengthier sentences for firearm-related offenses – mimicking Richmond’s Project Exile. Many jurisdictions also incorporated activities to curtail the supply of illegal firearms (e.g. gun recoveries by special teams composed of federal and local law enforcement; see Papachristos et al., 2007). Additionally, communication strategies – involving media campaigns of risk messages through a variety of outlets and/or direct communication to at-risk individuals through offender notification meetings – were implemented to deliver a deterrence message and, in the case of the offender notification meetings, provide support (via social services) and increase perceptions of the fairness and legitimacy of law enforcement and the violence reduction strategy (McGarrell et al., 2013b).

A series of case studies conducted in 10 jurisdictions observed to implement PSN in “a serious and significant fashion” suggest that PSN initiatives are a promising approach for gun violence reduction (McGarrell et al., 2009, p. v). Specifically, all sites observed a reduction in violence (although only eight reached statistical significance), ranging from two percent to 42% depending upon the type of violent crime examined (McGarrell et al., 2013b). More rigorous examinations of PSN impacts further bolster the evidence regarding the effectiveness of these initiatives. For example, in their quasi-experimental evaluation of Chicago PSN, Papachristos and colleagues (2007) observed homicides rates in targeted neighborhoods to decrease by 37% two years after the PSN program began. The PSN intervention was also associated with statistically significant reductions in gun-related homicides and aggravates assaults, as well as reduction in gang member involved (GMI) homicides – although the reduction in GMI homicides was not statistically significant. Providing further examination of the impact of individual components of the PSN initiative, Papachristos et al. (2007) found small to moderate reductions in overall homicide were associated with both the number of federal prosecutions and recovered firearms. The greatest reduction, however, was associated with the proportion of offenders who attended notification meetings (measured as raw percentage of the number of offenders who have attended the forum out of the total number of gun offenders on parole within

2 It is important to note the wide variation in the intervention and prevention programs used across the PSN sites. In many instances, PSN sites implemented some, but not all, the strategies discussed in this section. (see McGarrell et al., 2009 for further discussion of implementation variation across PSN sites).
the target area). Subsequent analyses suggest that offenders who attended the notification meetings were 30% less likely to be arrested than a comparison group of recently released offenders from the same neighborhood who had not attended a notification meeting (Wallace et al., 2016).

Expanding research evidence beyond the local-level, McGarrell and colleagues (2009, 2010) provide a national-level assessment of PSN impacts on violent crime trends (2000-2006; homicide, aggravated assault, and robbery) in all US cities with a population 100,000 or above. Cities within this study were distinguished by whether they received PSN treatment (Treatment N = 82; Comparison N = 170), as well as by the level of implementation dosage of the PSN program – determined by combining measures of partnerships, research integration, and federal prosecution. Notably, PSN treatment cities experienced a 4.1% decline in violent crime (45 fewer violent crimes per 100,000 residents) compared to a 0.9% decline in non-treatment cities. Comparisons of PSN effects by level of program dosage suggest that medium and high dosage cities experienced statistically significant, though modest, declines in violent crime whereas low dosage and non-treatment cities experience no significant changes. Hierarchical Generalized Linear Models (HGLM) further revealed that the relationship between being a target city, dosage level, and violent crime trend was statistically significant controlling for other city-level factors (e.g. concentrated disadvantage, population density). It appears that, cities where PSN initiatives were implemented with the greatest intensity and fidelity had a significant impact on violent crime (McGarrell et al., 2009, 2010).

In sum, PSN facilitated the adaptation of a national model for violence reduction to local contexts, encouraging collaboration with local research partners to conduct problem analyses to inform the tailoring of the response and with local organizations and representatives to enhance the legitimacy of the efforts. Although the flexibility of the PSN framework precludes the provision of a generalized description of specific PSN interventions, available research evidence highlights the ability of these programs to produce statistically significant reductions in gun violence. It should be noted, however, that observations of violence reduction associated with PSN are not universal (see Barnes et al., 2010) and that positive findings produced from existing case studies are likely a function of the site selection process for these studies (i.e., sites with rigorous implementation). Furthermore, the sustainability of the effects of PSN initiatives in the long-term remain in question. For example, in their quasi-experimental examination of PSN effects more than 10 years after its implementation in Chicago, Grunwald and Papachristos (2017) noted dissipating effects of PSN in the original treatment neighborhoods over time, as

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3 PSN continued to evolve to incorporate strategies designed to address gang crime, specifically, creating the Comprehensive Anti-Gang Initiative (CAGI). CAGI was implemented in 20 U.S. cities supported by the federal government in the development of enforcement, prevention, and re-entry programs targeting gang members, as well as individuals considered at high-risk for gang involvement (McGarrell et al., 2013b). Notably, this initiative mirrored the programmatic elements of the community-led violence prevention initiative referred to as the Spergel Model, now the OJJDP Comprehensive Gang Model (McGarrell et al., 2013a; see the community-led sections of this review for a full discussion of this model). Findings regarding programmatic effects are consistent with PSN findings presented here: level of implementation was associated with level of violence reduction benefits (McGarrell et al., 2013a). Furthermore, CAGI cities with high levels of implementation were observed to experience a 15% reduction in violent crime when compared to other similarly situated U.S. cities.
well as little evidence of programmatic effects in “expansion areas.” Accordingly, Grunwald and Papachristos (2017) highlight two important considerations in the implementation of comprehensive, interagency violence reduction programs such as PSN. First, it is possible that deterrence-oriented strategies exert short-term shocks on violent crime rates that lessen over time as targeted individuals become accustomed to the strategy. Second, the sustainment and/or expansion of program implementation over time is a challenge requiring consistent resources to maintain program effects.

These considerations are pertinent to current efforts for violence reduction, particularly in consideration of the National Public Safety Partnership (PSP) established in June 2017 by the U.S. Department of Justice (DOJ). Building upon a pilot program known as the Violence Reduction Network (VRN; launched in 2014), PSP is designed to provide the framework for the DOJ to enhance its support of law enforcement and prosecutors in the investigation, prosecution, and deterrence of violent crime – emphasizing crime related to gun violence, gangs, and drug trafficking (https://www.nationalpublicsafetypartnership.org/#about). Organized as a three-year commitment, the DOJ provides each PSP site support in seven core areas, including: federal partnerships, crime analysis, technology, gun violence, criminal justice collaboration, community engagement, and investigations. As of 2018, the DOJ reported conducting work with 26 PSP sites across the country (U.S. Department of Justice, 2018), with ten more sites added in 2019. Although process assessments have been conducted examining the implementation of PSP’s pilot program, VRN (see Connors & Cordner, 2016), as well as descriptive analyses examining violent crime rates in PSP sites over time (See U.S. DOJ, 2018), the authors of this review could find no rigorous empirical evaluation of the impact of PSP on violent crime. Based upon violent crime trend analyses, however, treatment sites appear to experience important reductions in violence following the implementation of the PSP program within their jurisdiction.

### 5. Custom Notifications

One tactic routinely used within larger focused deterrence initiatives is official visits by law enforcement agents to targeted individuals believed to be at-risk for engagement in violence. These visits, referred to as custom notifications, can take place on the street, within businesses, or at private residences. Custom notifications are an evolution of tactics originally described as home visits, targeted street stops, or knock-and-talks. While this law enforcement tactic has evolved over time, it finds its origins from Boston’s Operation Night Light, a strategy

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4 See [https://www.nationalpublicsafetypartnership.org/Home#sites](https://www.nationalpublicsafetypartnership.org/Home#sites)

5 The police-probation partnership home visit tactic has evolved into what has been described as a powerful police investigatory tool (Bradley, 2009; Eppich, 2012). Sometimes referred to as “knock and talks,” police officers knock on the door of a private residence to ask questions, seek consent to search, obtain plain view of the interior of the residence, and potentially arrest an individual without a warrant based on what was discovered during the encounter (Bradley, 2009).
implemented in the 1990s that partnered police and corrections officials to reduce violent crime through targeted communication with high-risk offenders. Specifically, in an effort to reduce gang activity and youth violence within the Boston area, Operation Night Light provided intensive enhanced supervision of youth probationers at high risk for reoffending, particularly those involved in gang, drug, and/or violent offenses (Alarid & Rangel, 2018; Parent & Snyder, 1999). Through home visits and street stops conducted by police and probation officers during evening hours, probationers were held accountable for court ordered curfew times and location restrictions (Corbett, 1998). The goal of this strategy was to increase youth probationers’ perceived likelihood of being caught when violating conditions of their probation and deter future reoffending or criminal, gang-related activity. The apparent success of this initiative, and the larger Operation Ceasefire it was situated within (see discussion of focused deterrence above), encouraged the implementation of probation-police partnerships in cities across the United States. Collectively, these replications emphasize the sharing of information and resources to target high-risk youth and adults on probation (Kim et al., 2010; Parent & Snyder, 1999).

Custom notifications can also be used as a stand-alone strategy to address community violence by communicating the consequences of committing violence directly to high-risk, street group members through home visits or face to face contact (Kennedy & Friedrich, 2014). Custom notifications provide police a mechanism to communicate with individuals not under supervision or correctional services but involved in violence (Kennedy & Friedrich, 2014). These individualized antiviolence messages are delivered by police and may also include community members or other individuals (e.g. officers’ family members, clergy, coaches, mentors, etc.,) believed to be positive influencers (National Network for Safe Communities, 2013). Notably, while custom notification strategies have been implemented in a number of cities, they are often in conjunction with broader focused deterrence strategies. As such, specific custom notification tactics have not been subject to evaluation separate from the larger focused deterrence evaluations identified above.

Similarly, empirical evaluation of Operation Night Light and other police-probation partnerships have been limited. However, the available research provides promising findings related to the efficacy of these programs. For example, in a recent study of an Operation Night Light program, Alarid and Rangel (2018) found that youth probationers under intensive supervision were significantly less likely to recidivate after their probation supervision was complete. Likewise, home visits increased the likelihood of probation officers identifying technical violations and reoffending, which encouraged probationers to avoid violating probation conditions. Further, home visits provided probation officers insight of probationer’s circumstances and allowed for the tailoring of probation services that best helped youth avoid violations (Alarid & Rangel, 2018). Other studies have shown reductions in crime activity, such as Worrall and Gaines (2006) study of San Bernardino County in California, which found a decrease in assault, burglary, and theft arrests after the implementation of a probation-police partnership also named Operation Night Light. However, results indicated some displacement effects of burglary crime in surrounding neighborhoods. Corbett (1998) also found a reduction in assaults and homicides within the Boston area during the time period of Operation Night Light’s implementation. However, these studies were unable to address potential confounding factors that may contributed to this reduction. Finally, in a study of Anchorage, Alaska’s Coordinated Agency
Network program, Giblin (2002) found that probationers under intensive probation supervision, implemented through unannounced police home visits, were more likely to receive new technical violations, but no more likely to have a new criminal charge, when compared to those on standard probation.

6. Stop, Question, and Frisk (SQF)

The authority of the police to stop, question, and frisk suspects was established by the U.S. Supreme Court decision in Terry v. Ohio (1968) concluding that the police may stop a person based upon “reasonable suspicion” of criminal activity (i.e., that a crime had just occurred, is in progress, or is about to take place). If a separate “reasonable suspicion” that the individual is armed and dangerous exists, the police may then conduct a frisk – that is, a limited search of the outer clothing of the stopped person. When applied as a proactive policing strategy, an SQF program encourages frequent pedestrian stops in which suspects are questioned about their activities, frisked if possible, and often searched to facilitate the discovery of weapons (Weisburd & Majmundar, 2018). Within this review, SQF is categorized as an offender-focused strategy due to the legal requirement that police focus on the behaviors of specific people to engage in a stop. However, it should be noted that SQFs have often been used as a proactive policing tactic applied to prevent violence at specific high-crime places (e.g. Rosenfeld et al., 2014). Indeed, SQF programs often involve saturating certain areas with pedestrian stops or field investigations to reduce violent crime. These programs are typically founded upon the assumption that SQFs will deter potential offenders by enhancing the perceived consequences of criminal activity through the increased probability of being stopped and searched by the police. In practice, SQF programs are characterized as one of the most controversial proactive policing strategies for preventing crime due to the intrusive nature of police interaction with citizens and the potential disparity in police outcomes that these interactions can produce (Weisburd & Majmundar, 2018; see Floyd v. City of New York, 2013).

The evidence base regarding the impact of SQF programs on crime, and violence more specifically, is provided by two general areas of empirical inquiry. The first is comprised of a series of non-experimental examinations assessing the impact of the New York City Police Department’s (NYPD) use of SQFs on crime. The second is a small body of research examining the crime prevention efficacy of officers’ self-initiated enforcement activities – including but not limited to SQFs – when targeting places experiencing serious problems with gun violence and focusing on high-risk violent offenders.

Findings regarding the effects of SQFs in New York City (NYC) have been described as “contradictory and incomplete” (MacDonald, Fagan, & Geller, 2016), with studies reporting mixed outcomes associated with the implementation of SQFs as a crime control strategy.

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6 The use of SQFs in New York City has received substantial attention due to the dramatic increase in SQFs during the early 2000s. Specifically, 160,851 SQFs were recorded in 2003, while more than 685,000 were recorded in 2011 (see Annual Stop-and-Frisk Numbers reported by the New York Civil Liberties Union (NYCLU) at https://www.nyclu.org/en/stop-and-frisk-data). Subsequent challenges to the NYPD’s use of SQF (i.e., Floyd v. City of New York [2013]) resulted in reductions in the use of this tactic.
These mixed findings are likely due, in part, to substantial differences in data and research methodologies used across the studies. Indeed, the extant literature is found to vary in temporal focus, geographic focus, crime types examined, use of statistical controls, and analytic strategies. Still, recent non-experimental evaluations employing statistically sophisticated analyses suggest that SQF programs may produce statistically significant crime reductions (MacDonald et al., 2016; Weisburd et al., 2016). For example, building upon research observing the concentration of the NYPD’s use of SQFs in high-crime locations (Weisburd et al., 2014), Weisburd and colleagues (2016) isolated the impact of SQFs on crime at a microgeographic level (i.e., street segments/intersections) in NYC over shorter periods of time (daily/weekly). Specifically, using advanced regression methods (e.g. instrumental variable regression, space-time interaction models), Weisburd et al. (2016) observed meaningful declines in average crime at micro-locations within a limited time period (i.e., less than five days), with little evidence of the spatial displacement of crime (see also Wooditch & Weisburd, 2016). Translating these findings in terms of overall crime reduction in NYC, Weisburd et al. (2016) found that within the peak year of SQF use (total of 686,000 SQFs), a two percent decrease in crime – or reduction of 11,771 crimes – at the city level was attributable to SQF. Situating these findings within the broader literature regarding the efficacy of hot spots policing strategies (Braga et al., 2019b), Weisburd and colleagues (2016) suggest SQF programs can be effective in crime reduction if used strategically within micro-locations where crime concentrates (see also MacDonald et al., 2016). It should be noted, however, that methodological limitations in this study preclude the examination of SQF effects on crime when police use of non-SQF enforcement tactics are also considered (see Apel, 2016 for full discussion of limitations). Further, the focus on total crime limits our understanding of the specific impact of SQFs on violence.

Despite these limitations, findings regarding the impact of SQF when applied in micro places are supported by the second area of empirical inquiry involving the quasi-experimental evaluation of SQF and other self-initiated enforcement activities by officers (e.g. investigative stops, arrest) when targeting places characterized by serious violence and focusing on high-risk, repeat violent offenders. For example, in a systematic review of evaluations examining police strategies to reduce firearm violence, Koper and Mayo-Wilson (2012) identified four non-randomized evaluations testing police crackdowns on gun carrying. These studies examined the impact of directed patrols, involving the assignment of additional officers to high-crime areas and allowing those officers to focus on proactive investigation and enforcement. Specifically, officers worked to detect and deter illegal gun carrying by increasing their visibility and initiating a greater number of field interrogations and traffic stops. Notably, these studies suggest that directed patrols focused on illegal gun carrying can prevent gun violence (Koper & Mayo-Wilson, 2012). However, conclusions regarding these findings are hindered by the small number of studies and variation in research methodologies employed.

More recently, several randomized control trial evaluations examining strategies to address violent crime hot spots have provided further insight on the role of SQFs in violence reduction. Although these studies were not explicitly designed to test the impact of SQFs, their findings inform our understanding of the effects of officer proactivity and direct contact with citizens in violent crime hot spots. For example, in their experimental study evaluating the effects of
directed patrol and self-initiated enforcement efforts on firearm violence hot spots in St. Louis, Missouri, Rosenfeld et al. (2014) found a significantly greater reduction in the rate of firearm assault in hot spots subjected to directed patrol and self-initiated enforcement activities (e.g. arrest, pedestrian/building/(un)occupied vehicle checks, foot patrol, and “problem solving”), compared to control hot spots between the pre-experimental and experimental period. Notably, statistical models suggest that only the greater certainty of self-initiated activity, not directed patrol affected firearm assault. However, only two of the self-initiated activities recorded by the officers were observed to be significantly associated with the rate of firearm assault in hot spots: arrest and occupied vehicle checks. Rosenfeld and colleagues (2014) suggest these activities had the greatest effect on violence given their requirement for direct contact with citizens, concluding that “…perhaps, they carry more deterrent force than merely patrolling a crime hot spots, in a vehicle or on foot, or inspecting unoccupied vehicles or buildings” (p. 442).

Finally, two experimental evaluations of police interventions in violent crime hot spots in Philadelphia (PA) provide additional insight into the link between pedestrian stops (or field investigations) and violent crime. Specifically, in the Philadelphia Foot Patrol Experiment, Ratcliffe et al. (2011) examined the impact of the efforts of more than 200 foot patrol officers working within 60 randomly selected violent crime hotspots. Findings suggest that violent crime hot spots targeted by foot patrol for up to 90 hours per week experienced a 23% decrease in violent crime in comparison to control hot spots. Notably, this reduction was found to dissipate once the foot patrols were removed (Sorg et al., 2013). Further examination of officer activity identified a substantial increase in the proactivity of officers (e.g. 64% increase in pedestrian stops) within treatment hot spots. Indeed, the violent hot spots experiencing the greatest reduction in crime were found to be characterized by high levels of proactivity during the treatment period. In contrast, the Philadelphia Policing Tactics Experiment found that randomly selected violent crime hot spots assigned foot patrol (N = 20) failed to experience significant reductions in violent crime. Notably, however, foot patrol within this experiment was found to lack the increase in proactive activity by patrolling officers. As such, although Ratcliffe et al. (2011) were unwilling to attribute the observed crime reductions in the first Philadelphia experiment to officer proactivity alone, it appears that increased contact with individuals in violent crime hot spots, including the increase in pedestrian stops, may play an important role in violence reduction.

In sum, a small body of evidence suggests that stop, question, and frisk (and similar self-initiated enforcement activities by police) can produce statistically significant violent crime prevention benefits when focused upon high crime places and high-risk repeat violent offenders (Weisburd & Majmundar, 2018). The efficacy of SQF programs as a proactive policing strategy, however, is attenuated by criticism of the legality of such tactics (Floyd v. City of New York, 2013), as well as consistent observations that the systematic application of SQFs can have significant negative consequences for police-community relations. Indeed, the continued use of SQFs and the justification for their use under Terry v. Ohio (1968) remains controversial from both legal and social perspectives (Lum & Nagin, 2017; Sweeten, 2016). This is not to say that SQFs do not have a place in the portfolio of police-led violence reduction strategies. However, aggressive policing of this type should be applied strategically within enforcement approaches tailored to mitigate violent crime within high crime micro places and among high-risk repeat offenders (Lum & Nagin, 2017).
B. Place-Based Approaches for Violence Reduction

Place-based approaches for violence reduction focus police resources on locations observed to produce a high level of violent crime. For the application of these police-led violence reduction strategies, “place” refers to discrete locations within larger urban environments, such as buildings, addresses, street segments, street blocks, or small clusters of buildings (Weisburd & Majmundar, 2018). The empirical foundation for place-based violence reduction strategies is established in a series of studies documenting the criminology of place. For example, in their seminal study, Sherman, Gartin, and Buerger (1989) observed that just three percent of addresses in Minneapolis, Minnesota accounted for 50% of calls for service in a given year. Similar findings have been produced from empirical studies across other cities, using multiple years of data, and different research methodologies (see, e.g. Andresen & Malleson, 2011; Pierce et al., 1988; Spelman, 1995; Taylor, 1999; Weisburd, 2015). Collectively, this research demonstrates that crime is not distributed evenly across cities. Instead, it is clustered at a few discrete micro places that represent “hot spots” of crime (Weisburd et al., 2012). Furthermore, the concentration of crime in a few locations is found to be consistent across neighborhoods, and stable across time (Braga et al., 2017; Weisburd et al, 2004), suggesting police could be more efficient and effective in crime prevention if they focus their resources on hot spots of crime within their respective jurisdictions (Sherman & Weisburd, 1995; Weisburd et al., 2017). Indeed, the ability of police to capitalize on the high concentration of crime at micro-locations has been demonstrated across a large number of research studies (Weisburd & Majmundar, 2018).

Place-based strategies for violence reduction can be comprised of many different tactics to address crime at specific places. Given this variation in approaches, the theoretical foundation of place-based strategies for violence reduction is also multi-faceted. However, many place-based strategies are founded upon the theories of environmental criminology, which identify the elements that create criminal opportunities (e.g. offender, victim, location) and examine the mechanisms that may alter those opportunities within specific places (Brantingham & Brantingham, 1993; Clarke, 1983; Cohen & Felson, 1979; Cornish & Clarke, 1987). Understanding these elements – how they arise and how they might be altered – provides direction for situational crime prevention (Clarke & Eck, 2003). Notably, the systematic review of interventions that incorporate situational crime prevention suggests that reducing opportunities for crime in specific contexts is an effective approach for crime reduction (Eck & Guerette, 2012).

Place-based interventions – particularly those that rely on increased police presence at specific locations and/or enhanced enforcement for specific crimes at specific locations – may also be founded upon the theory of deterrence. Specifically, police are observed as capable of enhancing the perceived risks of crime by increasing the certainty of apprehension when a crime occurs. However, these deterrence-based practices may provide only short-term crime prevention gains (Corsaro & Weisburd, 2018). Instead, the greatest deterrent effects are typically associated with place-based interventions that implement a wide variation of tactics (e.g. situational crime prevention) to address the underlying causes of crime within the hot spots of crime (Corsaro & Weisburd, 2018; Skogan & Frydl, 2004; Weisburd & Eck, 2004).
In sum, place-based violence reduction strategies are founded upon the observation that crime and disorder are spatially nonrandom, concentrating at particular places (Brantingham & Brantingham, 1995; Eck & Weisburd, 1995). By addressing these high-crime locations, police can substantially reduce crime and disorder (Braga et al., 2019b; Eck, 2002; Eck & Guerette, 2012). These observations provide implications not only for understanding the causes and correlates of crime, but also for best practices in place-based interventions. The following sections examine the implementation and empirical evidence for two police-led, place-based violence reduction interventions: (1) hot spots policing, which has demonstrated success in the prevention and control of violent crime in urban areas, and (2) place-based investigations, which represent a promising practice for effective violence reduction. Within these sections the research limitations in the evaluation of these interventions are considered. Further implications for practice can be found in Appendix A.

1. Hot Spots Policing

As a place-based violence reduction strategy, hot spots policing focuses police resources on the most crime-ridden micro-locations within a city. Facilitated by innovations in crime mapping, many police agencies have advanced their geographic understanding of crime within their jurisdictions for the application of hot spots policing interventions (Skogan & Frydl, 2004; Weisburd & Lum, 2005). Indeed, in a survey of their membership, the Police Executive Research Forum (PERF, 2008) found that nearly 9 out of 10 responding agencies used hot spots policing strategies to manage violent crime. More recently, findings from a survey of a representative sample of police agencies in the United States presented by the National Police Research Platform reported that 75% of agencies surveyed indicated their use of hot spots policing interventions.

Despite sharing a single operational goal (i.e., the focus of police resources at specific locations to reduce crime), the exact tactics used for hot spots interventions often vary among agencies (Weisburd, 2008; Weisburd & Majmundar, 2018; Weisburd & Telep, 2014). Research demonstrates there is no single method to implement hot spots policing. As such, approaches can differ dramatically across strategies (see PERF, 2008). The crime prevention efficacy of the given tactics depend upon the specific type of crime and type of place that are the focus of police attention (Weisburd & Braga, 2019; Weisburd & Telep, 2014). The following sections will discuss the research evidence of hot spots policing programs, which is one of the most commonly employed violence reduction strategies in police agencies across the United States (PERF, 2008). While the research literature examining hot spots policing is not without gaps, it nevertheless represents one of the strongest evidence-based strategies for violence reduction (Weisburd & Majmundar, 2018).

7 PERF members represent a group of the largest police agencies in the United States. The survey referenced was completed by 191 PERF agencies (63% response rate).
a. Empirical Evidence

In a seminal study of the first documented hot spots policing intervention, Sherman and Weisburd (1995) conducted an experimental evaluation of the crime control benefits of preventive patrol when targeting crime hot spots in Minneapolis, Minnesota. These researchers identified micro-geographical locations where calls for service were highly clustered and randomized these “hot spots” into treatment and control groups. During a 10-month treatment period, the treatment hot spots received two to three times as much police patrol presence relative to the control hot spots. The findings from the Minneapolis Hot Spots Patrol Experiment indicated statistically significant differences in the number of calls for service across the treatment and control groups. Specifically, the increase in preventive patrol produced a six to 13 percent reduction in calls for service within the treatment hot spots relative to the control hot spots, demonstrating “clear, if modest, general deterrent effects of substantial increases in police presence in crime hot spots” (Sherman & Weisburd, 1995, p. 645).

The promising findings from this initial application motivated the rapid diffusion of hot spots policing nationwide over the next two decades (Rosenbaum, 2006; Weisburd & Braga, 2019). Similarly, the research-base for hot spots policing has grown, with several systematic reviews and meta-analyses documenting this growth. For example, a 2007 Campbell Collaboration systematic review of the effects of hot spots policing identified only nine evaluations of hot spots policing interventions (Braga, 2007). Seven years later, the first update of that review highlighted 10 additional evaluations (Braga et al., 2014). Most recently, in an update of an ongoing systematic review and meta-analysis of the hot spots policing literature, Braga and colleagues (2019b) identified 65 experimental and quasi-experimental evaluations of hot spots policing. The observed interventions primarily involved an increase in traditional tactics by the police (e.g. increased foot or vehicle patrol, increased enforcement activities; N = 51; 65.4%) or the use of problem-oriented policing to reduce crime opportunities at places (N = 27; 34.6%). Notably, 41.5% (27 of 65 studies) of the evaluations reviewed used randomized controlled trials to estimate the effects of hot spots policing on crime, while the remainder used quasi-experimental research designs. A majority of the evaluations concluded that hot spots policing strategies produced significant crime control benefits in treatment areas relative to control areas, with a reported meta-analysis mean effect size of .132 (p < .001).

Within this updated systematic review and meta-analysis, 44 studies examined the impact of hot spots policing interventions on violent crime. Based upon these studies, Braga and colleagues (2019b) reported a mean effect size of .102 (p < .05) for violent crime. In contrast, the mean effect sizes for the impact of hot spots policing interventions on property crime, disorder offenses, and drug offenses were slightly larger: .124 (p < .05), .161 (p < .05), and .244 (p < .05), respectively.8

8 It is important to note that the estimated mean effect size of hot spots policing interventions on crime was slightly larger in the previous iteration of the systematic review (.184, p < .001) than the mean effect size reported in the updated review (.132; p < .001). Similar differences are observed in the estimated mean effect sizes for violent crime and drug offenses. Across these outcomes, the mean effect size is smaller in the updated systematic review and meta-analysis. In contrast, the mean effect size of hot spots policing interventions on property crime and disorder
Although less extensive than findings concerning the overall crime control benefits of hot spots policing interventions, the extant literature provides some insight regarding what police should do within crime hot spots to have the greatest impact on crime. These discussions primarily address the best “dosage” for hot spots policing interventions and most effective strategies for crime reduction within hot spots. For example, following a review of 18 case studies of police crackdowns (i.e., increases in officer presence, sanctions, and threat of apprehension in specific places), Sherman (1990) theorized a maximum utility point for police presence and concentrated enforcement at specific locations. Building upon Sherman’s (1990) work, Koper (1995) found that police presence at hot spot locations must reach a threshold dosage of approximately 10 minutes to produce greater residual deterrence – that is, deterrence effects after an intervention as ended – than that generated by officers simply driving through a hot spot. However, this analysis also showed fewer added benefits once police presence reaches 14 to 15 minutes. Koper (1995) concluded that police can maximize crime and disorder reductions within hot spot locations by making proactive, medium length stops at those hot spots. More recently, Corsaro and his colleagues examined the impact of the type of patrol treatment conducted during 15-minute segments of saturated patrol (Corsaro et al., 2019). Their results suggest that the treatments examined – stationary patrol vehicle lights and walking foot patrols – vary in their effectiveness to reduce different types of crime; specifically, stationary patrol lights more effectively decreased violent crimes, while foot patrols produced a more significant reduction in property offenses (Corsaro et al., 2019).

Several studies have also examined the efficacy of different types of police activities at hot spots on overall reductions of crime and disorder (e.g. Braga & Bond, 2008; Groff et al., 2015; Taylor et al., 2011). Generally, it has been found that hot spots policing interventions that implement some form of problem-oriented policing strategy produce greater reductions in crime than those programs that simply increase levels of traditional enforcement actions in crime hot spots (Braga et al., 2014). For example, in their updated systematic review and meta-analysis, Braga and colleagues (2019b) explored potential variation in the mean effect sizes of hot spots interventions that use traditional enforcement (e.g. increased presence or enforcement) versus problem-oriented methods to address crime. Consistent with past findings (see Braga et al., 2014), their meta-analysis revealed that problem-oriented policing programs generated a modestly larger mean effect size (.164, p < .001) than that of their traditional policing counterparts (.108, p < .001). Collectively, these findings encourage police to develop hot spots policing interventions following the problem-solving framework, producing strategies from the careful analysis of the crime problem within the individual hot spots, and tailoring crime reduction strategies to address the underlying dynamics that cause crime within those locations (Braga & Weisburd, 2010).

Offenses were found to increase. These differences could be attributed to the increase in the number of evaluations, as well as a greater prevalence of more rigorous evaluations of hot spots policing using experimental designs with higher levels of internal validity. Indeed, consistent with past research that suggests weaker research designs are more likely to report stronger effects in crime and justice studies (Weisburd et al., 2001; Welsh et al., 2011), the reported effects were found to be smaller for those hot spots policing interventions evaluated by more rigorous research methodologies. Specifically, the experimental evaluations of hot spots policing programs were associated with a smaller within-group mean effect size (.109, p <.001) than the quasi-experimental evaluations (.171, p <.001).
A primary concern for the application of hot spots policing pertains to the possibility of crime displacement; that is, if hot spots policing strategies are simply relocating crime from one place, time, target, offense, tactic, or offender to another, the benefits of these interventions are overstated (Guerette & Bowers, 2009; Rosenbaum, 2006, 2019). Generally, empirical studies that examine displacement find that there is little evidence of displacement resulting from crime prevention initiatives (Barr & Pease, 1990; Eck, 1993; Guerette & Bowers, 2009; Telep & Weisburd, 2012). Studies of hot spots interventions have primarily focused on the examination of spatial displacement, assessing whether the interventions result in the geographical shift of crime from the hot spot locations to adjacent areas; generally, these studies find that they do not (Bowers et al., 2011; Weisburd & Telep, 2014). Rather, many evaluations of hot spots policing interventions note a diffusion of crime control benefits to areas most proximal to the hot spot treatment locations. For example, Braga and colleagues (2019b) found that crime displacement and diffusion of crime control benefits were assessed in 46 tests of hot spots policing (58.9%). The meta-analysis of findings from these studies identified a small, but statistically significant, diffusion of crime control benefits effect (.086, p < .001) produced by the hot spots policing strategies. Although these tests of displacement are typically limited to the examination of crime shifts to immediately adjacent areas, these findings suggest that fears regarding the spatial displacement of crime following hot spots policing strategies need not be over-inflated.

Critics of hot spots policing suggest that spatially concentrated police interventions that rely on enhanced enforcement have the potential to erode citizens’ positive perceptions of the police (Kochel, 2011; Rosenbaum, 2006, 2019). Specifically, increased enforcement in clusters of micro-locations could cause area residents to perceive they are unfairly targeted by the police. In turn, perceptions of procedural justice and police legitimacy could be threatened, ultimately damaging residents’ cooperation and support for police action (Sunshine & Tyler, 2003; Tyler, 1990, 2001). These arguments are particularly salient for hot spots policing interventions in high-crime, minority neighborhoods, where police-community relations are strained (Brunson & Weitzer, 2009; Gau & Brunson, 2010; La Vigne et al., 2017). Despite these concerns, there is little evidence to suggest that hot spots policing interventions have negative effects on public perceptions of police (Weisburd & Braga, 2019; Weisburd & Majmudar, 2018; Weisburd & Telep, 2014). Instead, studies suggest that residents of crime hot spots may welcome the concentration of police resources within high-crime places, observing higher quality of life within their neighborhoods following the intervention (Braga & Bond, 2009; Chermak et al., 2001; Corsaro et al., 2010; Shaw, 1995). A more recent experiment assessing the impact of hot spots policing interventions provides a more nuanced understanding of this issue; although an initial decrease in residents’ perceptions of procedural justice and trust in police immediately followed the implementation of directed patrol in crime hot spots, these effects were not maintained six to nine-months post-intervention (Kochel & Weisburd, 2017). As such, the researchers suggest there may be no long-term harm to public perceptions of police from implementing problem-solving hot spots interventions or temporarily implementing directed patrol within hot spots of crime (Kochel & Weisburd, 2017).

b. Research Limitations

The review of the research evidence above suggests that hot spots policing interventions can be effective in preventing crime, with small, but significant, prevention effects on violent crime.
Although these findings are encouraging, several limitations in the available evidence base should be acknowledged (for a comprehensive discussion, see Weisburd & Telep, 2014). First, the available research provides limited insight into which hot spots policing tactics “work best” in addressing specific crime problems (Weisburd & Braga, 2019). Although it is understood that the efficacy of any hot spots policing intervention will depend upon the type of crime and type of place the intervention is designed to address, few evaluations provide insight related to the impact of specific police actions within hot spots. Furthermore, there are a wide array of hot spots interventions (e.g. buy-and-bust operations, focus on known offenders, probationer/parolee checks) that have not been rigorously evaluated (Weisburd & Telep, 2014).

Further, the long-term crime reduction benefits of hot spots policing interventions have not been established. Collectively, the existing evaluations have focused on the short-term crime prevention impacts of these strategies (Weisburd & Braga, 2019). Additionally, evaluations of hot spots policing interventions have not examined the occurrence of crime displacement or diffusion of benefits beyond the areas proximate to hot spots locations (Weisburd & Telep, 2014). Likewise, there is limited examination of displacement effects beyond spatial displacement. In addition, although the available research provides strong causal tests of the effects of hot spots policing interventions on specific high-crime locations, limited empirical evaluation of the jurisdiction-wide impact of hot spots policing strategies has been conducted (Weisburd & Braga, 2019; Weisburd & Majmundar, 2018; Weisburd & Telep, 2014). It is unknown whether reductions in crime at hot spot locations can produce meaningful crime prevention benefits for larger urban areas (i.e., overall crime trends in a city). Relatedly, almost all rigorous evaluations of hot spots policing intervention have been conducted in larger cities. As such, less is known about the implementation of hot spots policing strategies in smaller, less densely populated cities and whether the crime prevention benefits produced in larger urban areas are generalizable to smaller urban areas (Weisburd & Braga, 2019; Weisburd & Majmundar, 2018).

Although recent research has begun to examine the impact of hot spots policing interventions on public perceptions of police, less is known regarding the nature and consistency of these community-level outcomes. Future research should better document how police activities are executed during hot spots policing interventions and their potential impacts of residents’ perceptions of the police, incorporating methods to measure residents’ perceptions of police throughout the implementation of hot spots policing interventions as well as over longer periods of time post-intervention. Finally, additional research is needed to test the impact of new technology on the implementation and effectiveness of hot spots policing interventions (Weisburd & Braga, 2019). It has been suggested that the strategic use of technology (e.g. license plate readers) could enhance police efficacy in addressing high-crime places, but the available research provides mixed evidence pertaining to the few types of technology used in policing (see Koper et al., 2013; Lum et al., 2011).

2. Place-Based Investigations

Place-based investigations, also referred to in some jurisdictions as Place Network Investigations (PNI) or Place Investigations of Violent Offender Territories (PIVOT), is a promising police-led violence reduction strategy that allows police to identify and dismantle the infrastructures that support violent crime. Specifically, using place-based investigations, problematic locations are
identified, investigated, and targeted by the police and other city department leaders to alter opportunities for crime and disrupt the offender networks operating in those locations. Relatively new to the portfolio of police-led violence reduction strategies, the efficacy of this intervention is founded upon four key research findings: 1) crime is highly concentrated among offenders, victims, and places (Spelman & Eck, 1989), 2) a small number of places account for the majority of criminal activity (Wilcox & Eck, 2011), 3) strategies targeting criminal networks can reduce crime (Braga et al., 2018), 4) crime places are networked (Madensen et al., 2017).

Leveraging effective practices from traditional police responses (e.g. directed patrols), place-based strategies (e.g. situational crime prevention), and offender-focused interventions (e.g. focused deterrence), place-based investigations uncover criminogenic place networks and alter the characteristics of the problematic places within those networks to prevent future crime (Herold & Eck, 2020). This strategy is built upon traditional crime analysis, involving the identification of places where crime occurs, through the examination of crime place networks. Inherent in these investigations is the recognition that places associated with crime extend beyond locations where crime is commonly reported. Instead, crime place networks are observed to include many different locations used by offenders to conduct illegal operations and activities – locations that would not typically be identified without the use of targeted investigations. Specifically, Hammer, Christenson, and Madensen (2017) identify four types of locations that may comprise crime place networks: (1) crime sites, (2) convergent settings, (3) comfort spaces, and (4) corrupting spots. If left unaddressed, offenders (new and returning) may continue to use these locations to engage in criminal activity. In contrast, if the availability/viability of these locations within the crime place network is hindered, violent crime may also be interrupted. Indeed, the focus on crime place networks, rather than individual crime sites, can increase the time and effort of offenders to reestablish the physical infrastructure required to operate illicit markets.

To disrupt the infrastructure of crime place networks, place-based investigators examine chronically violent micro-locations (i.e., crime sites), identify the places associated with those crime sites (i.e., crime place networks), and gather information to build cases against individuals who either own and/or operate those network locations. The investigation of crime place networks is accomplished through many different methods, including (1) gathering intelligence to identify key players and places involved in network activities, as well as ownership connections across places; (2) conducting surveillance of offender and place activities and documenting the physical characteristics/social dynamics of key places; and (3) identifying

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9 *Crime sites* are high-crime places that facilitate interactions between offenders and victims/targets. Within place-based investigations, crime sites are locations of persistent violent crime. *Convergent settings* refer to public places routinely used by offenders. Examples of convergent settings can include bars, parks, intersections, and other public locations where offenders regularly loiter or socialize. *Comfort spaces* are identified as private places controlled by offenders and their associates (Hammer, 2011). These spaces may be used to meet, stage crimes, or store and distribute illicit goods and services (Hammer, 2011). Finally, *corrupting spots* are businesses that support offenders’ criminal activity (e.g. money laundering site). Each of these places plays an important role within the crime place network.
information sources or confidential informants to gather intelligence on place activities (Madensen et al., 2017).

Key to the implementation of place-based investigations is the creation of a place-based investigation review board. Board members may include police leaders, as well as leaders from other city departments who have the capacity to coordinate and strategically deploy city resources. Place-based investigators report the findings of their investigations to this review board and, together, they develop a city-wide response to engage in problem solving and situational crime prevention, identifying effective resources to change the crime-facilitating dynamics of the locations comprising the targeted crime place network. Notably, the specific resources or tactics used to address these places depend upon the specific characteristics of the discrete locations and the type of activities occurring there. As such, place-based investigations follow a problem-solving framework involving the tailoring of responses to the specific problems occurring in discrete locations, using a broad array of tactics (beyond traditional law enforcement) to address those problems. Collectively, this strategy aims to eradicate the deeply entrenched crime place networks to produce sustained crime reduction and facilitate community redevelopment and long-term economic growth.

Although initial assessments regarding the impact of this strategy are promising (Hammer et al., 2017), a comprehensive, peer-reviewed evaluation has not yet been conducted. While Hammer and colleagues’ reported reductions in violence at a micro-location in Cincinnati following the implementation of a place-based investigations intervention provides encouraging findings regarding the efficacy of this approach in violence reduction, limitations in the research design and statistical analyses limits confidence in its findings. Specifically, although the pre/post design provides insight into the temporal order of the intervention’s effects, the lack of comparable micro-locations or statistical controls within the analyses, and use of unvalidated measurement scales, present threats to the internal validity of the evaluation. Although founded upon a strong theoretical base, this intervention requires further investment from police and researchers to build the evidence-base regarding its efficacy in the prevention and control of violent crime.

C. Community-Based Approaches for Violence Reduction

Characterized by police efforts to mobilize the larger community against violent crime, community-based approaches for violence reduction involve methods encouraging citizens to become “coproducers” of crime control, targeting their efforts to prevent individual crime incidents, as well as addressing the underlying conditions that produce opportunities for crime (Weisburd & Majmundar, 2018). Although the impacts of community-based strategies on violent crime are less explored and, generally, less observed, they remain an important consideration for the broader portfolio of police-led violence reduction strategies. Indeed, many evidence-based strategies for violence reduction share theoretical roots with community-based approaches. Furthermore, the simultaneous application of community-based strategies with other evidence-based approaches for crime reduction is a common recommendation aimed to maintain a balance between the effectiveness and equity of policing (e.g. President’s Task Force on 21st Century Policing, 2015). The following sections describe the origins, implementation, and crime control benefits of three community-based approaches for violence reduction: community-oriented
policing (COP), broken windows policing, and procedural justice policing. Implications for the practice of each of these strategies can be found in Appendix A.

1. Community-Oriented Policing

In its original form, community-oriented policing (COP) was presented as an organizational framework encouraging changes in the decision-making processes and overall culture within police departments. Specifically, COP is founded on the assertion that police agencies should not limit themselves to traditional law enforcement for the prevention and control of crime. Instead, police should draw on community insight and involvement in the definition, prioritization, and response to crime problems (Gill et al., 2014).

Advocates of COP note its capacity for long-term crime prevention, as well as its ability to enhance public perceptions of police, particularly within communities where relationships between the police and residents have historically been strained. For example, the President’s Task Force on 21st Century Policing (2015) highlights community-oriented policing (or “community policing”) as one of its six pillars of policing, suggesting that the infusion of COP throughout the culture and organizational structure of law enforcement agencies to ensure law enforcement are focused on the importance of community engagement in reducing crime, while also protecting citizens’ rights (President’s Task Force on 21st Century Policing, 2015).

As an organizational framework, COP is described as consisting of three key components: 1) community involvement, 2) organizational transformation (i.e., decentralization), and 3) problem solving (Office of Community Oriented Policing Services, 2014). These components are highly interrelated and the efficacy of COP as an organizational strategy is suggested to depend upon the simultaneous existence of all three (Skogan, 2019). COP in practice, however, is often found to diverge from the organizational framework described above; instead, incorporated within police agencies at the unit level, embodied in specific tactics used by individual officers or by specialized teams in specific beat areas (Cordner, 2014; Gill et al., 2014). Reviews of community-oriented efforts by the police identify a long list of programs and tactics bearing the label of “community policing” (e.g. foot/bike patrol, community meetings, newsletters, neighborhood watch, training and education programs, Weisburd & Eck, 2004).

These various applications of community policing are found to share many commonalities grounded within the original COP framework, such as increasing interactions between the police and the community, creating accountable officers that know the areas they patrol, providing community voice in determining police priorities, enhancing decision making at the patrol-level, regaining legitimacy in the eyes of the public, prioritizing community safety through a social service ethos, and focusing on community problem solving rather than reactive law enforcement (Taylor, 2006). Still, the extent to which agencies that advertise their use of community-oriented policing actually engage in community involvement, organization transformation, and problem solving is unclear (Lum et al., 2016). Acknowledging this variation in the application of community-oriented policing, the following sections present the empirical evidence of the efficacy of COP in violence reduction, research limitations, and practical implications found in the available evaluation research.
a. Empirical Evidence

Although discussions surrounding the implementation of community-oriented policing programs are extensive, the evidence base for COP’s impact on crime is less substantial. Indeed, in its application, COP embodies a wide range of strategies and tactics, many of which have not been the subject of rigorous empirical evaluation (Skogan & Frydl, 2004). However, recent efforts by researchers have aimed to compile and summarize findings from the “fractured” evaluation literature related to COP programs (Gill et al., 2014, p. 405). Specifically, in their systematic review and meta-analysis of COP program evaluations, Gill and her colleagues (2014) identified 25 evaluations of COP programs containing reports on 65 independent treatment-control comparisons. Across these studies, the primary outcomes of interest included official crime and victimization, citizens’ perceptions of disorder, citizens’ fear of crime, citizens’ satisfaction with police, and perceptions of police legitimacy. At the descriptive level this review found that, although official crime was one of the most measured outcomes across COP evaluations, findings related to crime outcomes were among the least consistent (Gill et al., 2014).

Furthermore, findings specific to COP program effects on violent crime were limited by the methods of measurement within individual evaluations. Specifically, the majority of studies identified by the systematic review reported comparisons in “overall crime,” rather than changes across specific crime types. In all, only three studies, reporting five treatment-control comparisons, separated property and violent offenses within their analyses (Connell et al., 2008; Segrave & Collins, 2005; Uchida et al., 1992).

To provide a comprehensive understanding regarding the crime control impacts of COP programs, Gill and her colleagues (2014) completed two meta-analyses: the first using overall crime outcomes and property crime outcomes from the five studies mentioned above and the second using overall crime outcomes and violent crime outcomes (see Gill et al., 2014, p. 413 for in-depth discussion of analysis techniques). Although the mean estimated effect of COP on official crime outcomes was statistically significant when violent crime outcomes were incorporated within the meta-analysis (COP associated with 10% greater odds of reduced crime; OR = 1.098; p ≤ .020), the authors urge caution in the interpretation of these findings. Specifically, the small number of studies and the high degree of heterogeneity between them hinder strong conclusions regarding the impact of COP programs on crime (Gill et al., 2014). Notably, these findings are consistent with past narrative reviews of the literature (Sherman & Eck, 2002; Skogan & Frydl, 2004), suggesting that the direct impact of COP interventions on crime prevention and control remains uncertain (Weisburd & Majmundar, 2018).

The limited impact of COP programs on crime can be viewed as discouraging. However, many police researchers and practitioners recognize that COP did not originate as a crime reduction strategy (Klockars, 1988; Skogan, 2006, 2019; Skolnick & Bayley, 1988). As such, it is unclear whether a crime reduction effect should be expected from COP programs. Instead, COP emphasizes non-crime fighting roles of the police, seeking to influence broader “citizen-focused” outcomes, including community trust in police, citizen satisfaction with and confidence in police, as well as perceptions of police legitimacy (Gill et al., 2014, p. 430). Across these outcomes, researchers observe more positive findings. For example, in their systematic review and meta-analysis, Gill and her colleagues (2014) found COP programs to be associated with a statistically significant, moderate improvement in citizens satisfaction with police (OR = 1.373; p < .006).
Furthermore, citizens were found to report increased trust and confidence in police, along with perceptions that police treat citizens more fairly (i.e., increased legitimacy; OR = 1.276, p ≤ .077); although the mean effect did not reach statistical significance.

These citizen-focused outcomes bear considerable weight in discussions of the longer-term crime control effects of community-oriented policing. Research suggests that improving public perceptions in this manner can enhance police ability to control crime by increasing community members’ sense of duty to coproduce public safety and willingness to comply with and assist police (Mazerolle et al., 2013a; Sunshine & Tyler, 2003; Tyler, 1990). In the conclusion of their review, Gill and her colleagues (2014) highlighted the effects of COP programs on these outcomes, suggesting COP interventions could have longer-term effects on crime by leveraging their community-building impacts. However, evaluations have yet to measure these longer-term impacts.

b. Research Limitations

The evidence-base for community-oriented policing is accompanied by significant limitations that impact our ability to draw strong conclusions regarding the effectiveness of this community-based approach in crime prevention and control (Cordner, 2014; Gill et al., 2014; Weisburd & Majmundar, 2018). Many concerns pertain to the substantial heterogeneity in the conceptualization and application of COP. As stated previously, COP in practice often varies from its original proposition as an organizational framework. Instead, COP is more often realized as individual strategies or tactics labeled as community policing. Currently, the research literature lacks clear distinctions in the many different types, scope, and intensity of COP programs. This limitation obscures our ability to understand the independent contributions of different elements within COP programs, preventing the development of a clear logic model connecting COP interventions to reduced crime and other community outcomes. Furthermore, the wide variation in the application of community policing prohibits rigorous comparisons of existing programs and their associated outcomes. Indeed, Gill and her colleagues (2014) consistently advise caution in the interpretation of findings due to the extreme heterogeneity of studies included within their meta-analysis.

Research evidence for COP effectiveness is further obscured by the varied definitions of the “community” targeted by interventions. The community-based literature suggests “community” may refer to a specific physical setting (e.g. neighborhood, jurisdiction), an abstract concept of place (e.g. a support network), or to the actual people within a place (i.e., the potential coproducers of public safety) (Gill et al., 2014). Notably, the influence of different definitions of “community” on the observed effectiveness of COP interventions has not been studied. However, considering the “community” is meant to drive the identification of and response to problems deserving police attention, researchers highlight the potential impact of vague definitions on evaluations ability to identify crime prevention and control effects.

Finally, the evidence-base for COP is hindered by variation in the operationalization and measurement of outcomes. As suggested previously, the reliance on “overall crime” as a key dependent variable within evaluations prohibits the rigorous evaluation of COP impacts on various types of crime. Additionally, the available research is characterized by substantial
differences in the definition and measurement of survey-based outcomes across studies, such as citizen satisfaction with police, confidence and trust in police, and perceptions of police legitimacy. These inconsistencies in measurement make it difficult to develop direct comparisons in evaluation findings (Weisburd & Majmundar, 2018).

2. Broken Windows Policing

Broken windows policing (BWP) is a community-based violence reduction approach founded on the proposition that there is a causal relationship between neighborhood disorder and crime. In their seminal article presenting broken windows theory, Wilson and Kelling (1982) suggested that “untended” behavior, which may include both physical incivilities (e.g. trash accumulations, graffiti in public spaces, abandoned buildings) and social incivilities (e.g. public drinking, panhandling, noise pollution), can lead to a breakdown in the community’s informal social control, increasing residents’ perceptions of crime and fear of crime.10 In turn, residents withdraw from neighborhood life, making their neighborhood more vulnerable to “criminal invasion” (Wilson & Kelling, 1982, p. 32). In short, the broken windows framework suggests that addressing specific neighborhood incivilities should produce meaningful benefits, including fostering community order, renewing social/economic vitality, as well as the prevention of serious crime (Souza & Kelling, 2019).11 As such, broken windows theory argues that police interventions focusing on this physical and social disorder will increase the ability of the community to exercise informal social control and maintain order on its own. In this way, broken windows policing, like other police-led, community-based approaches, emphasizes police strategies that will build and strengthen communities.

In the past three decades, disorder policing has become an increasingly common crime control tactic. Indeed, the idea of managing conditions of physical and social disorder to prevent serious crime provides a base for many different police strategies, including community- and problem-oriented policing. These interventions vary in their approaches, ranging from strategies that use informal tactics such as verbal warnings to diffuse disorderly situations to more aggressive tactics involving citations or stop, question and arrest to target disorder (Braga et al., 2015; Weisburd & Majmundar, 2018). These interventions have carried many different names, including quality-of-life policing, order maintenance policing, and zero tolerance policing. The intent of each of these strategies is to reduce social and physical disorder or prevent the expansion of disorder and other more serious crimes within the community. The following sections present the empirical evidence, research limitations, and practical implications produces from the extant evaluation literature examining broken windows, or disorder policing.

10 Wilson & Kelling (1982) famously illustrate their theory through the example of broken windows in a building suggesting that the breaking of one window (i.e., a sign that no one cares) will inevitably lead to all of the windows being broken.

11 The broken windows logic model suggests an indirect pathway from disorder to crime by means of increased fear and the subsequent breakdown of informal social controls in the community, which leads to a further increase in disorder and more serious crime (Weisburd et al., 2015).
a. Empirical Evidence

Most comprehensive reviews of the crime control effects of disorder policing strategies suggest the findings are mixed, “with an array of positive, null, and negative effects” (Braga et al., 2015, p. 580). For example, in their systematic review and meta-analysis, Braga and colleagues (2015) identified 28 randomized experimental and quasi-experimental evaluations containing 30 independent tests of disorder policing interventions. The majority of these tests (20 of the 30) involved the evaluation of community problem-solving programs designed to engage residents, local business owners/managers, and other community stakeholders in the identification of crime and disorder problems, as well as the development and implementation of appropriate responses to those problems. The remaining tests of disorder policing interventions involved the evaluation of aggressive order-maintenance strategies, which rely on enforcement-based tactics – such as arrest and ordinance violation summons – to target disorderly individuals.

Findings from this meta-analysis of effect sizes presented within the individual evaluations suggest that disorder policing strategies are associated with a statistically significant, modest crime reduction effect (d = .210, p < .05), which was present across all crime categories, including violent crime (d = .227, p < .05) (Braga et al., 2015). Notably, the strongest crime reduction effects were generated from disorder policing strategies that involved community problem-solving interventions (d = .271, p < .000), whereas aggressive order maintenance strategies that target individuals’ disorderly behaviors did not produce significant crime reductions. The research designs of the individual evaluations were also found to influence the reported effect sizes, as studies using weaker research methodologies were more likely to report stronger effects on crime (d = .239, p < .05) than experimental designs (d = .149, p < .05) (Braga et al., 2015). Collectively, these findings suggest that broken windows policing, when implemented using a problem-solving framework, can have a meaningful impact on crime.

b. Research Limitations

The body of research that has explored the broken windows policing model varies considerably in its study designs and evaluations. Much of that research, as highlighted by Weisburd and his colleagues (2015), focuses specifically on measures of crime reduction in attempts to evaluate the effect of broken windows policing strategies. However, future research is needed that clarifies the underlying mechanisms of the broken windows policing model and identifies the most effective policing strategies. Specifically, few studies have specified the key components of the broken windows framework that lead to crime reduction. Additionally, less is known regarding the types of policing interventions that influence other crime-related community outcomes, including fear of crime and the presence of informal social control within a community. The current literature suggests that observed outcomes of disorder policing strategies may vary, dependent upon the type of strategy used by police. However, these studies are unable to identify specific components of strategies that contribute to positive outcomes (Weisburd & Majmundar, 2018).

One key impediment to evaluations of the effectiveness of broken windows policing strategies is related to the substantial amount of time that may be required to identify whether strategies are in fact influencing key broken windows model constructs (e.g. community fear of crime, social
control, and crime reduction). It is important to note that these constructs are difficult to measure and examine, and evaluations of this kind would likely require primary data collection (Weisburd et al., 2015). Future research should consider the use of longitudinal research designs to encompass all potential outcomes of disorder policing strategies; an endeavor requiring considerable time and financial resources (Weisburd et al., 2015).

3. Procedural Justice Policing

As a community-based approach, procedural justice policing is founded upon the observation that police cannot succeed in crime prevention or control without the support of the community and that community support is influenced by “how people experience policing” (Weisburd & Majmundar, 2018, p. 231). Specifically, the importance of these experiences is emphasized in the observation of the relationship between citizens’ perceptions of the “fairness” (i.e., procedural justice) of officer decision making in police-citizen encounters and citizens’ perceptions of police legitimacy. In turn, these perceptions are suggested to impact citizen cooperation and compliance with the police, impacting police effectiveness in crime prevention and control (Sunshine & Tyler, 2003; Tyler & Huo, 2002). When applied to violence reduction, the procedural justice model suggests that the police may produce violent crime control benefits in the long term by fostering citizens’ cooperation and compliance through their procedurally just interactions with community members. That is, community members may be more willing to become coproducers of public safety – contacting the police to report violent crime incidents, assisting in police investigations of violent crime, supporting community violence reduction efforts, and complying with the law – when their feelings of trust in and responsibility to the police and the law are encouraged through procedural justice policing (Nix et al., 2015; Sunshine & Tyler, 2003; Tyler et al., 2015).

In practice, procedural justice policing is founded upon four key elements police officers are encouraged to apply in their interactions with citizens to enhance the process of these encounters: voice, neutrality, respect, and trustworthiness (Mazerolle et al., 2014; Tyler et al., 2015). Collectively, these elements provide a prescriptive model for police interactions with

12 In this context, legitimacy is defined as “a property of an authority that leads people to feel that authority or institution is entitled to be deferred to and obeyed,” where the “authority” is the police and the rule of law (Sunshine & Tyler, 2003, p. 514).

13 Although procedural justice policing is typically focused on external procedural justice (i.e., officers’ interactions with the public), internal procedural justice follows a similar approach within the police organization. The current review focuses on external procedural justice as it relates to violence reduction as the outcomes typically measured with regard to internal procedural justice are related to trust in the administration, job satisfaction, organizational commitment, and overall views of the agency (Donner, Maskaly, Fridell, & Jennings, 2015).

14 Voice encourages officers to provide the opportunity for citizens to participate (e.g. explain the situation from their perspective) in the process of the encounter before a decision for action is made. Neutrality recommends that officers remain transparent within police-citizen encounters by explaining their decision making to the citizen in an objective manner. Respect highlights the quality of interpersonal treatment within police-citizen interactions, encouraging officers to be courteous, uphold the rights of the citizen, and acknowledge their status as a member of the community. Finally, trustworthiness advocates for officers to use their discretion to convey that their decision
citizens, outlining a method by which officers may use their authority in ways that are perceived as fair due to the enhanced quality of treatment and quality of the decision-making process (Mazerolle et al., 2013b; 2013c). In turn, as a strategy, procedural justice policing is based on a conscious, proactive effort by police agencies to enact policies and training that put these elements into action, systematically modifying officers’ everyday interactions with the public to influence future outcomes (Weisburd & Majmundar, 2018). Specifically, the quality and fairness of interactions should demonstrate to the community that police are exercising their authority in a just manner, improving community perceptions of police legitimacy. This ultimately reduces crime in the long term by increasing citizens’ deference to authority, cooperation with the police, and compliance with the law (Mazerolle et al., 2014; Worden & McLean, 2017a).

A number of studies over the last 15 years have explored the impact of procedural justice initiatives adopted by police agencies across the country. Many findings produced from these studies suggest that procedural justice policing has an important role in establishing perceptions of police legitimacy, which may facilitate the overall effectiveness and perceived equity of other police-led violence reduction strategies (Mazerolle et al., 2013b). However, the question of whether procedural justice policing reduces crime – and specifically violent crime – is largely unanswered, with most research on procedural justice, police legitimacy, and citizen compliance focusing on the impact of police legitimacy on minor legal violations (Eisner & Nivette, 2013; Nagin & Telep, 2017). It is possible that violent crime may be motivated by different factors than norm-breaking and less serious offending behavior or that procedural justice and police legitimacy are less important to violent offenders (Jackson et al., 2012). To examine the efficacy of procedural justice policing in producing violence reduction benefits, future research should incorporate serious criminal behavior into measures of compliance (Jackson et al., 2012; Papachristos et al., 2012b; Tyler & Jackson, 2014).

The limited findings regarding the role of procedural justice policing in reducing violent crime does not suggest that police agencies should discourage the use of procedural justice policing. In contrast, procedural justice reflects appropriate police practice in a democratic society (Schulhofer et al., 2011). Additionally, the use procedural justice may lessen the chance that citizen perceptions of injustice will be triggered by legally justified stops (Engel, 2005; Schulhofer et al. 2011) – a particularly important consideration given research suggests greater saliency of negative experiences in forming attitudes and perceptions (Skogan, 2006; Tyler & Fagan, 2008; Worden & McLean, 2017a). Furthermore, the use of procedural justice does not require a significant budgetary investment; therefore, the strategy is a cost-effective one (Mazerolle et al., 2014; McCluskey & Reisig, 2017). Finally, most studies do not find negative effects of pursuing procedural justice policing strategies, so there is minimal likelihood of harm (Mazerolle et al., 2014). As such, although the available research does not currently indicate the efficacy of procedural justice policing as a violence reduction strategy, police agencies are encouraged to leverage the procedural justice model to augment other evidence-based violence reduction strategies as one method to balance the perceived equity and effectiveness of those strategies.

making is made in good faith, out of sincere concern for what is in the best interest of the community (see Mazerolle et al., 2014; Tyler et al., 2015).
III. COMMUNITY-LED, PUBLIC HEALTH VIOLENCE PREVENTION INTERVENTIONS

Responses to the violence epidemic are often focused on the criminal justice system; however, many researchers, practitioners, and policymakers observe that waiting until violence has occurred to take action neglects the opportunity to prevent violence before it begins (David-Ferdon & Simon, 2014). Additionally, although violence reduction strategies often focus exclusively on intervening with known violent offenders, there are a many other points of intervention (e.g. individual, relationship, community) that provide potential avenues for effective violence prevention (Masseti & Vivolo, 2010; Matjasko et al, 2016). By prioritizing multi-faceted, evidence-based prevention efforts, communities may be able to realize greater overall reductions in rates of violence (David-Ferdon & Simon, 2014; Matjasko et al., 2016). Nowhere are these prevention efforts more often observed than in existing community-led, public health interventions for youth violence reduction.

In October 1985, Surgeon General C. Everett Koop convened a workshop on violence and public health, marking the beginning of the public health field’s growing involvement in violence prevention (Mercy et al., 1993). This involvement was founded upon increased observations in the public health profession of the homicide and suicide “epidemic” occurring in the 1980s (Dahlberg & Mercy, 2009). By the early 1990s, the public health field shifted from describing this violence epidemic to identifying effective methods of violence prevention (Dahlberg & Krug, 2002; Dahlberg & Mercy, 2009). Today, the Centers for Disease Control and Prevention (CDC) actively defines violence as a public health concern, outlining a wide variety of interventions tailored towards violence prevention and rooted in various theoretical models (Abt, 2017).

A public health approach for violence reduction, by definition, does not focus on individual patients, but rather considers violence a community problem and attempts to address larger conditions that affect health in populations (Dahlberg & Krug, 2002; Massetti & Vivolo, 2010). Public health is interdisciplinary, using knowledge from psychology, medicine, sociology, criminology and other fields, and takes advantage of the diverse knowledge base of multiple community stakeholders to collectively address a problem (Petrosino et al., 2015; Welsh et al., 2014). Taking this public health approach for preventing youth violence involves four key steps from identification of the problem to the implementation of the solution, including: (1) defining the problem through data collection, (2) identifying causes (i.e., prevalence of risk factors or lack of protective factors), (3) developing and evaluating interventions, and (4) implementing the intervention in a variety of settings and disseminating information (Dahlberg & Krug, 2002; Fagan & Catalano, 2013; Mercy et al., 1993).

The CDC uses a social-ecological model to understand violence (CDC, n.d.; Dahlberg & Krug, 2002). According to this model, violence occurs as a result of complex interactions between four key groups of factors – individual (e.g. age, substance use, history of abuse), relationship (e.g. peers, family members), community (e.g. high population density and heterogeneity in neighborhoods), and societal (e.g. cultural norms, economic and educational policies). The social-ecological model posits that certain factors serve as risk or protective factors for being victims or perpetrators of violence (CDC, n.d.). Identification of these risk factors highlights
avenues for prevention opportunities (Prothrow-Stith, 1995), with each level of the model providing an intervention point for prevention.

Public health interventions are generally organized into three categories based upon their level of prevention. Primary prevention seeks to stop violence before it occurs, secondary prevention focuses on immediate responses to violence, and tertiary prevention focuses on mitigating the long-term effects of violence (Dahlberg & Krug, 2002; Welsh et al., 2014). Public health interventions are further categorized depending upon the intended population of the intervention: universal interventions are designed for the general population, selective interventions are geared towards individuals at risk, while indicated interventions are focused on high-risk individuals who possess a risk factor or certain condition (Fagan & Catalano, 2013; Gordon, 1983). Using this categorization for violence prevention interventions, universal interventions are applied uniformly without consideration of an individual’s risk (e.g. school programs provided to children of a certain age), selected interventions are focused on individuals who are at an increased risk (e.g. an intervention aimed at children displaying early aggression), and indicated interventions are aimed at individuals who have already engaged in violent behavior (Dahlberg & Krug, 2002; Tolan & Guerra, 1994; Williams & Donnelly, 2014). This approach recognizes that relatively few individuals commit a majority of violent crime and these individuals tend to live in communities with disproportionate exposure to general risk factors, necessitating interventions that target indicated and selective populations (Abt, 2017; Massetti & Vivolo, 2010; Welsh et al., 2014). It also acknowledges the increased likelihood of the community-wide impact that universal interventions offer (Fagan & Catalano, 2013; Welsh et al., 2014).

Community-led, public health interventions provide communities access to a diverse array of multidisciplinary resources, leveraging the benefits from the mobilization of intervention efforts across a variety of community stakeholders (Allison et al, 2011; Backer & Guerra, 2011; Petrosino et al., 2015; Welsh et al., 2014). Notably, the role of law enforcement varies widely across the portfolio of community-led violence reduction strategies, with some initiatives operating independently from law enforcement, while others have law enforcement as one of many partners (Abt, 2017; Butts et al., 2015). There are strengths and weaknesses to each of these approaches. For example, community-led violence reduction initiatives that do not include a law enforcement component may be most effective in locations with a history of poor police-community relations (e.g. Campie et al., 2017). In contrast, others argue that a balanced approach toward violence reduction involving a collaborative partnership between public health and safety offers the greatest chance to realize significant success (Abt, 2017; Anderson et al., 2017; Williams & Donnelly, 2014).

Multi-faceted, evidence-based approaches to violence reduction require communities to commit to a long term investment of both time and financial resources, as they demand significant coordination in order to avoid common barriers to implementation (Azrael & Hemenway, 2011; David-Ferdon & Simon, 2014; Kingston et al., 2016). When communities are able to navigate these demands, these approaches offer great potential for both individual- and community-level violence reduction benefits. A small but growing number of studies have applied rigorous methodologies to evaluate comprehensive community-led violence reduction initiatives (Matjasko et al., 2016). This section discusses those strategies that meet the following criteria (Cohen et al., 2016; Fagan & Catalano, 2013; Gravel et al., 2013; Kim-Ju et al., 2008; Kingston
et al., 2016; Matjasko et al., 2016; Matjasko et al., 2012; Smokowski et al. 2018). Specifically, to be considered in the present review, the community-led violence reduction strategy must:

- Be rooted in public health principles, aiming for a community-wide impact on health outcomes, not just specific individuals
- Be comprehensive, designed to intervene at multiple levels (e.g. individual, relationship, community) to both reduce risk factors and enhance protective factors for violence
- Involve interagency cooperation or partnership under the organization of a single coordinating agency or individual.
- Involve decision-making led by local community, although technical assistance may be provided by community-academic partnerships.
- Include a package of evidence-based programs specifically selected based on the community’s identified needs

Led by these criteria, the programs presented below consider the public health model for violence prevention and present empirical evidence for six community-led, public health approaches that have been subject to evaluation. This discussion highlights important opportunities to empower communities in the prevention of youth violence through the application of evidence-based interventions targeting change within individual youth, families, and the larger community.

Although the evidence base for community-led violence reduction strategies is not as extensive as many police-led strategies, a number of comprehensive community interventions have been evaluated for both their fidelity to implementation and their efficacy. Due to the primary and secondary prevention focus of many community-led interventions, the measured outcome variables are often related to risk factors and protective factors instead of violence related dependent variables. This section presents the implementation model and evidence base for community-led, public health violence prevention strategies.

1. Communities that Care (CTC)

The Communities that Care (CTC) intervention is a violence prevention initiative involving the implementation of multiple evidence-based programs meant to improve community capacity to prevent violence (Fagan & Catalano, 2013; Hawkins et al., 2009, 2012). Although most CTC programs are designed to be universal, targeting children in the fifth to ninth grades, as well as their families and schools, some are delivered specifically to at-risk populations (Fagan et al., 2009; Hawkins et al., 2009; Oesterle et al. 2018). The CTC intervention mobilizes community stakeholders to take the lead in identifying their community’s most significant risks and selecting corresponding programs to adopt (Hawkins et al., 2009, 2012). This is accomplished by using a CTC Youth Survey, a standardized assessment designed to empirically identify community-level risk factors and protective factors (Hawkins et al., 2009, 2012; Hawkins et al., 2014). Armed

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15 Our review is not intended to encompass all types of non-law enforcement related violence reduction strategies (e.g. cognitive behavioral therapy, wilderness therapy, hospital-based) or all community-led or public health model violence reduction initiatives. For other recent comprehensive reviews, see Abt & Winship, 2016; Fagan & Catalano, 2013; Juillard et al., 2016; Makarios & Pratt, 2012; Matjasko et al. 2012.
with this knowledge, communities are able to prioritize their greatest needs and select which interventions to implement from CTC’s Prevention Strategies Guide of tested and effective individual, school, family and community-based programs (Hawkins et al., 2009; Hernández-Cordero et al., 2011; Morrel-Samuels et al., 2016). Although law enforcement agencies may partner with CTC community coalitions as part of particular programs, CTC interventions are decidedly community-led and do not include an enforcement or suppression component.

The degree to which CTC has been fully implemented with fidelity has been examined in several process evaluations, with findings suggesting high levels of fidelity and a high quality of implementation sustained over time (Fagan et al., 2012; Fagan et al., 2009; Gloppen et al., 2012). In examining the quality of program adherence, delivery, participation, and participant responsiveness in 12 communities, Fagan and his colleagues (2009) found greater than 90% adherence across four years, successful delivery and quality of programmatic elements of the intervention, and increased participation levels in school-based programs over time. All evaluated CTC communities had paid staff, participated in process training, received technical assistance from academic partners, and had secured funding; securing these important elements may be necessary in order to achieve high quality implementation (Fagan et al., 2009). Nearly two years after support for the CTC interventions ended, most communities still maintained the organizational structure and delivery of the intervention programs, but more than half were not able to secure continued funding and one-third had lost paid personnel (Gloppen et al., 2012).

Even during initial implementation of the interventions, intervention community leaders noted some challenges, particularly with regard to participation levels for parent training programs and after school mentoring and tutoring programs, which were low despite extensive recruitment, participation incentives, and attempts to minimize obstacles to participation (Fagan et al., 2009, 2012). Another CTC location noted the challenge of finding evidence-based programs that could be delivered to a community with a large Spanish speaking population (Hernández-Cordero et al., 2011).

Empirical evaluations using randomized control trial designs show generally positive findings related to the CTC prevention system in terms of reductions in risk levels, problem behaviors, delinquency and violence, but mixed results with regard to their sustainability. Specifically, post-implementation follow up assessments completed in 8th, 10th and 12th grades, and post-high school, CTC communities, when compared to control communities, showed lower mean levels of the use of alcohol, tobacco, and drugs as well as reduced lifetime incidence and initiation of delinquent or violent behavior (Hawkins et al., 2009, 2012; Hawkins et al., 2014; Oesterle et al., 2018). Some differences were noted, however, when outcomes were examined solely for the previous year as compared to lifetime incidence. While Hawkins and colleagues (2012) found lower odds of delinquent and violent behavior in the past year for CTC communities at the 10th grade assessment, there were no significant differences for these outcomes at the 12th grade and post-high school assessments (Hawkins et al., 2014; Oesterle et al., 2018). Finally, mean levels of community risk factors increased significantly slower and remained lower in CTC communities when compared to control communities in the 10th grade (Hawkins et al., 2012); there were, however, no significant reductions in mean levels of risk factors between CTC and control communities at the 12th grade assessment (Hawkins et al., 2014). These findings suggest that the CTC interventions were effective in lowering the initiation of problem behaviors and violence at the community level, but that once they were initiated, the intervention did not have
an impact on their prevalence (Hawkins et al., 2014; Oesterle et al., 2018). The timing of prevention programs, therefore, is crucial in order to prevent the onset of problematic behaviors (Hawkins et al., 2014).

A small number of studies explored whether CTC resulted in differential impact on certain types of individuals in practice (Oesterle et al., 2014). The initial results suggest that males may benefit from prevention programs more than females and that stronger program effects are evident for those with higher baseline levels of community-identified risk factors. For example, male participants were found to have higher likelihood of abstaining from tobacco and marijuana use and lower likelihood of delinquency than females (Oesterle et al., 2014, 2018; see also Flay et al., 2004 for gender differences in a non-CTC comprehensive intervention). In terms of stronger program effects for those with initially higher risk levels, the findings are mixed with one CTC study indicating no difference but a non-CTC study finding somewhat stronger effects for individuals with higher baseline risk levels (Oesterle et al. 2014; Spoth et al., 2015).

2. Youth Violence Prevention Centers (YVPC)

Following the Columbine school shooting in 1999, Congress mandated the creation of youth violence prevention centers as part of the Centers for Disease Control and Prevention (CDC), and charged them with the mission to assist communities in combatting violence by empowering them to apply proven knowledge to their specific violence-related situations (Matjasko et al., 2016; Mercy & Vivolo-Kantor, 2016; Morrel-Samuels et al., 2016; Vivolo et al., 2011). The initial funding cycle from 2000-2005 created ten centers across the nation (initially called Academic Centers of Excellence) in order to lay the organizational groundwork to facilitate growth and expansion of scientifically grounded youth violence interventions to communities across the nation. These centers were focused on multidisciplinary approaches to youth violence, collaboration between community stakeholders with local knowledge and academic research teams with subject matter expertise, and community ownership of responses to youth violence (Matjasko et al., 2016; Vivolo et al., 2011). Another ten centers were funded in 2005-2010 that focused on a partnership between each YVPC research team and a single community to test the infrastructure and process created by the initial YVPCs.

Researchers at the YVPCs funded in the third cycle from 2010-2015 were expected to develop comprehensive evidence-based intervention strategies that targeted communities at high risk of violence. These interventions included both universal and indicated component programs designed to target general and high-risk populations accordingly, and incorporated programs that targeted risk and/or protective factors at multiple levels of the social ecological model (i.e., individual, relationship, and community) in order to result in measurable changes at the community level when their impacts were evaluated (Farrell et al., 2016; Kingston et al., 2016; Matjasko et al., 2016). At each of the YVPC sites, program selection and implementation were based on a number of factors that were community-specific including:

1. Community capacity to initiate planning, integrate existing and new resources, and generally organize to effect change
2. Researcher and community roles in selecting intervention programs (in some locations, community partners were capable of taking the lead in this regard, whereas researchers
had to take a more active role in other sites)

3. Use of data for program selection: use of crime and census data was standard across sites, while other data sources that could speak to risk and protective factors (e.g. school and community surveys, child and family well-being data) varied in quality and availability

4. Distribution of the program: determining how selected program content would be delivered and to whom in order to maximize impact but work within the capability of available resources and funding restrictions (Kingston et al., 2016)

The selection and adoption of evidence-based programs involve consideration of a variety of factors, including the characteristics of both the program and the community where it will be implemented. Assessing community capacity or readiness takes into account all the factors specified above and considers the broader social, economic, cultural, political, and policy contexts that may support or inhibit the success of a community in implementing a comprehensive approach to violence prevention and intervention. The degree of readiness or capacity within organizations (e.g. schools and community agencies) to effectively deliver prevention programs proves critical to implementation success.

Typical partners in a Youth Violence Prevention Center community-academic partnership include the academic research institution as well as hospitals, churches, neighborhood groups, schools, city or county health and social service agencies, mental health agencies, police departments, and the juvenile justice system (Azrael & Hemenway, 2011; Heinze et al., 2016; Hernández-Cordero et al., 2011; Morrel-Samuels et al., 2016; Smokowski et al., 2018). Like CTC initiatives, YVPCs may partner with law enforcement but they remain community led. YVPCs have been established in communities with varied contexts, including rural, suburban, and urban areas, as well as communities with significant racial or ethnic minority populations (Morrel-Samuels et al., 2016). Different implementation dynamics were evident across these different communities. For example, in rural North Carolina, trust and familiarity were already evident, but existing resources were not as readily available, whereas in urban Flint, Michigan established community resources existed but trust and transparency had to be developed through a series of meetings and information sharing (Morrel-Samuels et al., 2016). Across all locations, however, successful implementation was rooted in trust, transparency, commitment, communication, and the community’s ability to select specific programs (Morrel-Samuels et al., 2016).

Empirical examinations by the most recently funded YVPCs show promising impacts. In Flint, Michigan, the community-academic partnership delivered and evaluated the cumulative effect of six different programs on youth victimizations reported to the police department and youth assault injuries treated at the only public hospital emergency department in the community (Heinze et al., 2016). Over a period of six years, including prior to the intervention and up to more than two years after the intervention, youth victimizations reported to the police and emergency room assault injuries fell significantly in the intervention area compared to the control community and these reductions were sustained over time (Heinze et al. 2016). In rural Robeson County, North Carolina, the NC YVPC adopted an evidence-based package of three programs in order to affect change in youth violence rates as well as risk and protective-related factors: (1) a universal school-based program, (2) a selective family-based program, and (3) an indicated community-based Teen Court program (Smokowski et al., 2018). The impact of each
program was evaluated separately as well as in combination, as they were chosen partially because of their complementary impact (Smokowski et al., 2018). Individual program effects included significantly increased self-esteem and decreased school hassles for school participants, significantly decreased violence and parent-child conflict and increased confidence in parenting skills for the family-based program participants. Teen Court participants reported significant decreases in delinquent friends and violent behaviors as well as improved family and peer relationships and mental health (Smokowski et al. 2018). Furthermore, at the county level, positive effects were also noted over a four-year period; decreases occurred for juvenile arrests (7%), aggravated assault arrests (18%), non-school-based offenses (47%), and delinquent complaints (31%) (Smokowski et al., 2018). The initial evidence from YVPC initiatives that were geographically concentrated and included program components that targeted multiple levels of the social ecological model are a promising strategy for preventing and reducing youth violence (Heinze et al. 2016).

3. Cure Violence

Cure Violence (first developed as Chicago CeaseFire) is a community-based, public health approach to gun violence prevention that seeks to address violence amongst high-risk individuals while simultaneously altering community attitudes and norms toward gun violence (Butts et al., 2015). First developed in the mid-1990s, this strategy involves the collaboration of community members, leaders, and organizations to change social norms related to violence, enhance individual- and community-level perceptions of the risks/costs of violence, and provide alternatives to violence (Skogan et al., 2008). The potential efficacy of this approach is founded upon consistent empirical observation that violence is highly concentrated among certain networks of people (Papachristos, 2012a; Tracy et al., 2016). As such, interventions that focus on interrupting the spread of violence within these networks could have substantial violence prevention benefits for the larger community (Maguire, 2017). Although implemented in cities both nationally and internationally, the evidence base for this violence prevention approach is still developing.

In practice, the Cure Violence model consists of three primary elements designed to limit the spreading of violent behavior in the community: (1) detecting and interrupting violence directly by anticipating where violence might occur and intervening before it happens, (2) identifying and treating individuals at high-risk for the use of violence to alter their violent behavior, and (3) changing group norms pertaining to violence by discouraging the use of violence within the community (Butts et al., 2015; Ransford & Slutkin, 2017). Collectively, these elements aim to address the violent “code of the street” that may exist among youth and young adults in urban communities (Anderson, 1999; Wilson et al., 2011).

To interrupt violence, trained Cure Violence staff detect and mediate ongoing conflicts between groups within the community, seeking to prevent retaliatory shootings and other violent activities (Ransford & Slutkin, 2017). Specifically, staff members referred to as “violence interrupters” are tasked with monitoring threats of violence and preventing violent incidents through direct intervention with high-risk individuals. To enhance the credibility of Cure Violence staff among violent groups and individuals, these violence interrupters are selected based upon their own experiences with crime/violence (e.g. former high-level gang members), they typically come
from the communities within which they work, and they are hired for their ability to establish relationships with high-risk youth and young adults in the community. Violence interrupters monitor ongoing disputes between violent groups to learn about potential acts of retaliation before they happen. Using this information, violence interrupters intervene to persuade individuals involved in violence to mediate conflict using non-violent methods (Butts et al., 2015). The interruption of violence in this manner is viewed to stabilize the community, as well as alter norms related to the use of violence for conflict resolution (Ransford & Slutkin, 2017).

The identification of high-risk individuals is accomplished through “active case finding” (i.e., seeking out youth and young adults at highest risk for violent behavior, Ransford & Slutkin, 2017, p. 608) based on a set of pre-determined criteria. Once selected, these individuals undergo treatment designed to alter their thinking and behaviors. Specifically, outreach workers (OWs) are used to facilitate the change in thinking and behavior among individuals at high-risk for the use of violence. Similar to case managers, OWs connect high-risk individuals to prosocial opportunities and resources (e.g., employment, housing, education, recreational activities) that can assist/encourage individuals to walk away from their violent lifestyle (Butts et al., 2015).

Finally, the alteration of group norms is accomplished through public education efforts and events (e.g., anti-violence marches, post-shooting vigils, media campaigns) designed to communicate that violence is harmful to all within the community, that it is unacceptable behavior, and that it can be stopped (Butts et al., 2015). Cure Violence staff members collaborate with neighborhood partners (e.g., faith-based organizations, neighborhood associations, tenant councils) to change social norms within the community. In all, the Cure Violence model highlights five components for an effective violence prevention strategy: (1) street outreach to at-risk youth; (2) public education; (3) community mobilization; (4) faith leader involvement; and (5) collaboration with law enforcement. Notably, although operating largely independently of the police, the Cure Violence model encourages building a relationship with law enforcement to assist in the identification of violent crime patterns within the community, as well as the identification of effective violence interrupters and outreach workers for the violence reduction initiative (Butts et al., 2015).

Cure Violence has been implemented both nationally and internationally. However, researchers have examined the impact of the Cure Violence initiatives in only a few cities. Notably, assessing the evidence base for the effectiveness of Cure Violence in the prevention of gun violence is complicated by the variation in program implementation (i.e., fidelity to Cure Violence model), site characteristics (e.g., history, specific crime problems, geospatial dynamics of treatment areas), and the research methodologies (i.e., research design, outcomes examined, measures employed) used for evaluation (Petrosino, 2015). However, a recent review of the available research suggests the evaluations of these programs provide mixed findings at best.

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16 Specifically, individuals selected for treatment must meet four of seven conditions, including: (1) being involved in a gang, (2) being a major player in a drug or street organization, (3) having a violent criminal history, (4) having been recently incarcerated, (5) having a reputation of carrying a gun, (6) having been a recent victim of a shooting, and (7) being between 16 and 25 years of age (Butts et al., 2015).

17 See www.cvg.org/what-we-do/

18 See www.cvg.org/where-we-work/
For example, the initial evaluation of Cure Violence in Chicago reported primarily positive effects of the violence prevention approach. In examining 16 years of shooting and attempted shooting data across seven treatment sites, Skogan and colleagues (2008) found statistically significant reductions in violence across four of the seven locations. Further hot spot analyses suggested that areas within six of the seven Chicago treatment sites were “noticeably safer” (Skogan et al., 2008, p. 7-30), while social network analyses identified significant shifts in gang homicide patterns produced from the Cure Violence program. Although later examination of the Chicago data would suggest the violence prevention benefits of this program may have been overstated (Maguire, 2017), this initial evaluation provided the base for the replication of the Cure Violence model across other cities.

Subsequent evaluations provide more mixed findings regarding the violence prevention effects of Cure Violence. For example, in Pittsburgh, evaluators found no association between the One Vision One Life program and reductions in homicides; instead, all three treatment neighborhoods were observed to experience a statistically significant increase in aggravated assaults and gun assaults post-intervention (Wilson et al., 2011). In Baltimore (Safe Streets), only one of the four treatment sites was observed to experience statistically significant reductions in both homicides and nonfatal shootings (Webster et al., 2012). In Brooklyn, New York (Save Our Streets) evaluators found no statistically significant differences in violence, although shooting incidents were found to decrease in the treatment area (Picard-Fritsche & Cerniglia, 2013). In Phoenix, Arizona (TRUCE project), the program was associated with a statistically significant decrease in overall violent crime incidents. However, this finding was found to be driven by the decrease in assaults within the treatment area (a decrease of more than 16 assaults/month). In contrast, the program was associated with a statistically significant increase in the number of shootings within the treatment area which increased by 3.2 shootings/month (Fox et al., 2015a). More recently, the examination of Project REASON in Trinidad and Tobago reported significant violence prevention benefits (i.e., decrease in violent crime reported to police, calls for service for violent incidents, and gunshot wound admissions to local hospital) in the 24-month post-intervention period (Maguire et al., 2018).

Collectively, this research demonstrates the variation in Cure Violence program effects, with some treatment neighborhoods experiencing the hypothesized reductions in violence (Delgado et al., 2017; Fox et al., 2015b; Maguire et al., 2018; Roman et al., 2018; Skogan et al., 2008; Webster et al., 2012), while others experience either no significant change in violence (Picard-Fritsche & Cerniglia, 2013; Webster et al., 2012) or an increase in some types of violence (Fox et al., 2015b; Webster et al., 2012; Wilson et al., 2011; see Butts et al., 2015 for review).

4. PROSPER

The PROSPER (Promoting School-Community-University Partnerships to Enhance Resilience) model is a comprehensive community-based program aiming to reduce risky behaviors, enhance positive youth development, and strengthen families. PROSPER leverages the capacities of existing community partners including schools, community groups, social service and health agencies to provide evidence-based violence prevention programs in rural and semi-rural areas (Backer & Guerra, 2011; Kingston et al., 2016; Redmond et al., 2009). Notably, there is no law enforcement involvement within this program (Spath et al., 2011; Spath et al., 2015). During
implementation of PROSPER, academic partners guide communities in their selection of evidence-based prevention strategies that best suit the specific community’s needs, but the community team is ultimately responsible for implementing and sustaining the selected strategies (Backer & Guerra, 2011; Redmond et al., 2009; Spoth et al., 2011, 2015). The selected evidence-based strategies typically included school-based and family-based interventions focused on developing protective factors (parent & youth skills) or minimizing risk factors among the general population of middle-school youth (Redmond et al., 2009; Spoth et al., 2011, 2015).

A review of the research identifies two longitudinal studies of the impact of PROSPER interventions that found positive effects across levels of the social ecological model. Specifically, randomized control trials examining intervention outcomes across 28 PROSPER communities in two states found youth in the intervention group to report significantly lower levels of association with antisocial peers, stealing, truancy, lying, aggression and destructive behavior than youth in the control group (Redmond et al., 2009; Spoth et al., 2015). At the family level, intervention families reported greater parent-child affective quality and better child management than control families (Redmond et al., 2009). Positive progress related to these family and youth outcomes is expected to further community-wide impact on youth problem behaviors and violence (Redmond et al., 2009).

Evaluation research highlights the importance of sustained technical assistance from academic partners for the implementation of the PROSPER intervention in the long term. Specifically, a randomized control trial examining the sustainability of evidence-based interventions in 28 PROSPER communities (Treatment University Partnership Model N = 14; Control No Program Support N = 14) found high-quality implementation, with adherence to family-based and school-based interventions, was sustained over several years within the treatment communities (Spoth et al., 2011). Notably, findings related to the high-quality implementation of these evidence-based interventions is important given the link between quality of program implementation and the efficacy in producing outcomes (Spoth et al., 2011).

5. Hospital-Based Violence Intervention Programs

Given the pattern of repeated injury from violence (Goins et al., 1992; Haider et al., 2014), hospitals, specifically trauma centers, have been highlighted as uniquely positioned to intervene in the violent injury recidivism cycle (Mikhail & Nemeth, 2016). Characterized as tertiary violence prevention, these programs focus on victims of street violence – leveraging “the period of thoughtfulness that can follow traumatic assault” as a “teachable moment,” providing a potential window for trauma center intervention (Mikhail & Nemeth, 2016, p. 501). Notably, this type of intervention reexamines the role of hospitals and trauma centers in the health care and social support of victims of violence, suggesting the efficacy of hospital-community approaches in reducing individuals’ risk for future violent victimization. Specifically, these programs focus on reducing injury recidivism by intervening at the time of injury to address the needs of the patients, the context of their social environment, and, in some cases, their involvement in the criminal justice system (Juillard et al., 2016).¹⁹

¹⁹ An empirical reality of violence, similar to other crime, is that victim and offender populations often overlap (e.g.
Hospital-based tertiary violence intervention programs typically include (1) brief interventions founded upon motivational interviewing techniques and (2) comprehensive case management carried out shortly after violent injury. As the name suggests, brief interventions involve time-limited contacts with patients suffering from violent injuries following their screening within the hospital. In turn, case management involves coordination with health services by a case manager guiding the patient through recovery, often extending to assistance across multiple levels within the community (Mikhail & Nemeth, 2016). As such, these programs are found to provide a broad range of services, including medical and psychological help, legal assistance, and financial counseling to reduce the potential for criminal involvement and reinjury (Bell et al., 2017). Hospital-based violence intervention programs can be found in cities across the United States. Indeed, a review of the available empirical literature highlights several different programs, varying in their elements of intervention, but sharing similar goals: reducing violence-related trauma—typically among youths and young adults—in their respective communities. Collectively, the extant research suggests that these victim-focused interventions are not only cost effective, but also can produce meaningful reductions in violence-related outcomes (Juillard et al., 2015; Purtle et al., 2015).

A recent systematic review of evaluations assessing the impact of trauma center-based violence prevention programs in the United States identified 10 studies—including five experimental evaluations—examining nine different violence intervention programs (Mikhail & Nemeth, 2016). Although sharing a common goal for violence prevention, these interventions were found to vary in duration (i.e., treatment dosage), as well as in the degree to which they addressed individual-, relationship-, and community-level factors associated with violence and violent injury. In turn, the evaluations of these programs were found to vary in methodological rigor, as well as outcomes examined, including assessments of both direct (e.g., reinjury, death, rearrest, convictions) and indirect (e.g., self-reported aggression; referrals to services made, referrals used, needs met, post-discharge emergency department and clinic visits) measures of violence.

The systematic review of these evaluations provides a mixed narrative regarding the effectiveness of hospital-based violence intervention programs across outcomes of interest. Still, results across studies suggest that these programs, particularly those that provide intensive case management services, can produce positive outcomes (Mikhail & Nemeth, 2016). For example, short-term outcomes indirectly associated with violence, such as patients’ use of referrals and the degree to which patients’ “needs were met” were found to experience the greatest improvement following program involvement (Gomez et al., 2012; Smith et al., 2013a, 2013b). Examinations of the impact of hospital-based violence intervention programs on direct measures of violence provide mixed findings, however. For example, in examining rates of reinjury, some studies demonstrate reductions in the rate of reinjury associated with violence (Cooper et al., 2006; Lauritsen & Laub, 2007). That is, those individuals involved in violent crime are also among the highest risk for violent victimization, necessitating violence interventions that address factors that contribute to violent victimization and criminal involvement simultaneously.

20 Such programs have included, although are not limited to, Baltimore’s Violence Intervention Project, Boston’s Violence Intervention Advocacy Program, Cincinnati’s Out of the Crossfire, Chicago’s CeaseFire, Indianapolis’ Prescription for Hope, Philadelphia’s Healing Hurt People, the Pennsylvania Injury Reporting and Intervention System, Milwaukee’s Project UJIMA, San Francisco’s WrapAround Project, and Operation PeaceWorks in Ventura County, California.
Smith et al., 2013a, 2013b; Gomez et al., 2012; Marcelle & Melzer-Lange, 2001); although, others note no difference (Aboutanos et al., 2011; Shibru et al., 2007; Zun et al., 2006). Across rearrest outcomes (measured in three evaluations), only one study observed improvement following patient participation in case management (Shibru et al., 2007). Similarly, for conviction outcomes, a single experimental study found case management to be associated with fewer convictions (Cooper et al., 2006); although another found no change (Aboutanos et al., 2011). Despite conflicting findings, hospital-based violence intervention programs are largely hailed as a success, with recent research suggesting the efficacy of such programs in reducing recidivism associated with violent injuries and the sustainability of these effects over many years (Bell et al., 2018; Juillard et al., 2016).

Notably, findings regarding the efficacy of case management within these programs demonstrates the importance of implementing an integrated hospital-community approach for successful violence intervention. Indeed, guidance offered to victims of violent injury in a structured case management format lasting between one- and two-years post-injury appears necessary to ensure patients’ use of services to facilitate life changes (Mikhail & Nemeth, 2016). However, the development and sustainability of such programs can face many barriers that must be considered for effective program implementation, including limitations in resources such as funding, case management staffing, and availability/quality of community partners and services (Cheng et al., 2008). Still, if implemented in a comprehensive and rigorous manner, hospital-based violence intervention programs may offer an effective method for violence prevention.

6. OJJDP Comprehensive Gang Model

Unlike many of the community-led violence prevention initiatives, the Spergel Model, which was later renamed the Comprehensive Gang Model, explicitly includes a component related to law enforcement. Furthermore, in its original conception, this model was not based on the public health approach to violence, as the program was nearly exclusively focused on youth already involved in gangs - a tertiary approach to an indicated high-risk population (National Gang Center, 2010). This intervention is included in the present review based on later refinements to the model, as well as upon its consistency with the previously outlined criteria for community-led violence reduction interventions.

The Comprehensive Gang Model is based on five interrelated strategies for reducing gang-related youth violence: community mobilization, opportunities provision, social intervention, suppression, and organizational change and development (National Gang Center, 2010). Briefly summarized, these strategies focus on a comprehensive community-led approach that (1) coordinates multiple agencies, organizations, and institutions (e.g. schools, social services, faith-based ministries, etc.) in order to link gang-involved youth and their families to the provision of pro-social services and resources; (2) increases formal and informal supervision and monitoring of gang-involved youth by criminal justice agents, schools, and community groups (e.g. directed police patrols, specialized gang units, increased school resource officers, neighborhood watch); and (3) assesses whether changes in community-level policies and procedures could better allocate available resources to gang violence reduction (National Gang Center, 2010).
The initial evaluations of the Comprehensive Gang Model occurred in the mid-1990s and were conducted in Riverside, CA, San Antonio, TX, Bloomington, IL, Tucson, AZ, and Mesa, AZ (Spergel et al., 2005a, 2005b, 2005c, 2005d, 2005e). The implementation quality and empirical effectiveness of these initiatives varied widely. Three of the five locations (Bloomington, San Antonio, and Tucson) suffered from significant implementation issues, including failure to incorporate key elements of the Comprehensive Gang Model (e.g. no established steering committee, lack of grassroots community collaboration), and a disproportionate focus on suppression as a strategy in comparison to the other parts of the Model (National Gang Center, 2010; Spergel et al., 2005b, 2005c, 2005e). In Tucson, key participants could not agree on the nature of the community’s gang problem and the community lacked data that could objectively establish the extent of the gang problem (Spergel et al., 2005e). Not surprisingly, these locations showed few program effects as measured either by violence-related arrests of program youth or community-level gang crime (Spergel et al., 2005b, 2005c, 2005e).

Alternatively, in Riverside, there was a high degree of community involvement and commitment across multiple agencies and strong adherence to the implementation plan. This location saw significant reductions in violence-related arrests for program youth and at the community level, but there were no significant effects on program youth’s membership in gangs or size of gang membership in the community (Spergel et al. 2005a). This offers optimism that when the model is well-implemented it can have positive impacts on gang-related violence.

Based on lessons learned from these early initiatives, the National Gang Center identified a number of best practices that would improve the likelihood of successful implementation of the Comprehensive Gang Model. These best practices include: convening a steering committee and selecting a lead agency, assessing the specific community’s gang problem, selecting the most appropriate program activities for the community-specific needs, developing a plan for implementing the program, and establishing how to sustain the program. Assessment of the early initiatives also led the OJJDP to develop the Gang Reduction Program, which included modifications to the original program content and the funding of new projects in Los Angeles, CA, Richmond, VA, Milwaukee, WI, and North Miami Beach, FL. The most significant refinement to the program content was the addition of prevention programs aimed both at the broader population (e.g. prenatal care, job programs, English as Second Language, etc.) and at youth and families at risk (e.g. mentoring, afterschool programs, etc.) in addition to intervening with current gang-involved youth (National Gang Center, 2010). These modifications are consistent with the social ecological approach of the public health model for violence reduction.

These later iterations of the Comprehensive Gang Model also demonstrated differences in implementation quality and program effectiveness. Implementation issues experiences by later iterations included: competing priorities among participating agencies, personnel turnover, an over-emphasis on the suppression component of the model, and little long-term planning for sustaining the program (National Gang Center, 2010). Despite these difficulties, three of the locations at least partially sustained the Gang Reduction Program in the period following the conclusion of funding. In terms of effectiveness, although North Miami Beach and Milwaukee saw declines in violent and gang-related incidents, these changes were not statistically significant when compared to control areas. In Los Angeles and Richmond, however, significant reductions
occurred in these communities’ overall crime rates, as well as incidence of serious violence and gang related incidents.

Growing out of the Gang Reduction Program, the City of Los Angeles Mayor’s Office established the GRYD (Gang Reduction and Youth Development), which was a comprehensive gang violence reduction strategy designed to intervene at multiple levels of the social ecological model (Kraus & Harden, 2018). This was accomplished by a multi-faceted approach that sought to improve communities’ internal capabilities to combat gang violence through the use of educational campaigns, identification of at-risk youth and increased protective factors for them, and engaging in violence interruption and pro-social case management services with gang-involved youth and young adults (Abt & Winship, 2016; Gravel et al., 2013; Kraus & Harden, 2018). Although the GRYD community coalitions established close working relationships with police departments, there was no overt enforcement component in the initiative (Kraus & Harden, 2018). Initial assessments of GRYD’s effectiveness indicate individuals’ risk levels were lowered and communities saw decreases in gang related fights and total homicides (Abt & Winship, 2016).

Although these evaluations provide an important base for our understanding of the violence prevention benefits of many community-led comprehensive initiatives, the available research is not without limitations and future research has a number of important avenues to explore in order to ensure community-led initiatives continue to be well-implemented and based on strong scientific evidence. First, with few exceptions (e.g. Smokowski et al. 2018, Spergel et al. 2005a), most evaluations fail to provide insight regarding the programmatic elements responsible for variation in the violence prevention benefits of the various comprehensive models (Kim et al., 2015; Petrosino et al., 2015). Future impact evaluations should evaluate each program separately and as part of a cumulative package in order to specify the content of program interventions that is most likely to affect change (Fagan & Catalano, 2013; Farrell et al. 2016; Gravel et al., 2013). Comprehensive interventions are not always specific about how individual program components are theoretically expected to influence outcome variables. This type of analysis should increase the likelihood that program components are supported by logic models and that they bear out their hypothesized results (Farrell et al., 2016; Gravel et al., 2013).

Second, implementation quality has not been routinely evaluated in previous research (Gravel et al., 2013; Klein, 2011; Petrosino et al., 2015). This is a significant deficit in the literature as it has been suggested that fidelity to the treatment model and “depth of implementation” may play an important role in program effects (see Maguire et al., 2018; Matjasko et al., 2012; Whitehill et al., 2013). When implementation has been evaluated, researchers consistently identify barriers to implementation that are likely to impede efficacy in violence prevention. Most notably, the very nature of comprehensive community-led interventions lends itself to inherent implementation issues based on the difficulty involved in coordinating communication, information sharing, and collective action toward a common goal across a considerable number of diverse individuals, agencies, and organizations (Abt, 2017; Bolton et al., 2017; Kim-Ju et al. 2008; Matjasko et al., 2012). Other process evaluations highlight difficulties in the development and sustained implementation of comprehensive violence prevention programs related to high levels of neighborhood disorganization, the absence of community leaders willing or able to spearhead violence prevention efforts, limited buy-in from community residents, staffing turnover, and
inconsistent program funding (Azrael & Hemenway, 2011; Kingston et al., 2016; Klein, 2011; Massetti & Vivolo, 2010; Miao et al., 2011; Parker et al., 2011; Skogan et al., 2008). Additionally, dedication to the consistent measurement of model fidelity (i.e., process evaluations) must accompany evaluations of program effectiveness.

Third, to further understand the impact of community-led violence reduction programs, future evaluations must be designed to examine the full range of theoretical and causal mechanisms that comprise each of the comprehensive violence prevention approaches reviewed. Although most of these programs are created to affect change in both individuals and communities, the available research has focused primarily upon the effects of programs on community-level outcomes, while neglecting the examination of individual-level change (Butts et al., 2015; Campie et al., 2017; Klein, 2011; c.f., Smokowski, et al., 2018). Researchers further suggest the need for in-depth ethnographic analyses to augment quantitative findings, providing insight into the process of changing norms and attitudes related to violence both amongst individuals and across the communities targeted by violence reduction programs.

Fourth, a small number of studies examined whether interventions that are designed for the general population differentially impact certain types of individuals. These studies produced initial evidence that program effects might benefit males more than females and individuals who had higher baseline levels of community-targeted risk factors (Oesterle et al., 2014, 2018; Spoth et al., 2015). Future research should further explore whether the effectiveness of interventions that are designed to be universal and transferable to diverse populations instead vary by individual or community characteristics (Butts et al., 2015; Fagan & Catalano, 2013).

Fifth, as a matter of practicality, evaluations of primary and secondary violence prevention programs depend on following participants for many years in order to measure impact on violent behavior (Abt & Winship, 2016). In the interim, therefore, it is important to measure more short-term outcomes that are typically related to reductions in risk factors or increases in protective factors (Vivolo et al., 2011). Furthermore, it is likely that program effects may be evident in the measurement of other antisocial or delinquent behaviors and it is important to understand other program benefits (Kingston et al., 2016; Redmond et al., 2009). Nevertheless, the impact of these programs on violence is of the utmost importance. Studies must not rely solely on evidence of effectiveness for these other types of outcome variables under the assumption that the programs will affect youth violence in the same manner. While other problem behaviors may share common risk and protective factors with youth violence, it is possible that youth violence has unique antecedents (Hall et al., 2012). Longitudinal assessments that follow youth into young adulthood are necessary to properly evaluate intervention effectiveness on violence-related outcomes. Related to this is the need to expand measures of violence at the community level beyond only police data. For example, a recent study using hospital emergency department patients suggests a large percentage of violent incidents occurring in public spaces go unreported to police (Wu et al., 2019) and other previous research notes the value of sharing data regarding violent incidents across health services, police, and local government (Florence et al., 2011, 2014). Only a few reviewed studies supplement official crime data with hospital data to measure violence (Heinze et al., 2016; Maguire et al., 2018). Using multiple sources of data to complement one another will provide communities a more accurate assessment of the nature of
their violence problem and better inform their prevention efforts (Florence et al., 2011, 2014; Wu et al., 2019).

In a recent review of “What Works” in youth violence reduction, Abt & Winship (2016, p.27) argued that “leveraging multiple programmatic effects must be done thoughtfully.” Some scholars argue that multi-faceted approaches work because they take advantage of the skills, knowledge, and diversity of various stakeholders and simultaneously target risk factors at multiple levels of the social ecological model (Cohen et al., 2016; Fagan & Catalano, 2013; Farrell et al., 2016; Makarios and Pratt, 2012; Petrosino et al. 2015). Others contend that single-component or indicated evidence-based programs that focus on high-risk populations are more effective because comprehensive approaches are too difficult to successfully implement in practice and ignore the clustering of violence (Abt, 2017; Matjasko et al., 2012; Petrosino et al., 2015). Finally, other scholars suggest that there is merit to each approach. Specifically, they support the creation of comprehensive evidence-based program packages that include both universal (e.g. delivered to all youth in a general population) and selective or indicated (e.g. delivered to youth at risk or already involved in violence) program components, in which the likelihood of community-wide reductions in youth violence and other problem behaviors is increased (David-Ferdon & Simon, 2014; Fagan & Catalano, 2013; Kingston et al., 2016).

This section presented the implementation model and empirical evidence of the efficacy of five community-led, public health-based violence prevention programs. Although not without limitations, the available evidence suggests that comprehensive community-led interventions are a promising approach for violence prevention within urban communities. The research reviewed in this section suggests that the potential of these community approaches is rooted in both high quality implementation and a long-term effort to build cooperative partnerships among academic researchers, community stakeholders, and those overseeing the administration of programs. Perhaps the most important lesson for community-led interventions is the recognition that these types of interventions are not “one size fits all” — communities must take into consideration their unique history, collective capacity for mobilization, available resources, and nature of the violence problem in that location when selecting and adopting evidence-based interventions (Abt, 2017; Fagan & Catalano, 2013; Kingston et al., 2016; Massetti & Vivolo, 2010; Mercy & Vivolo-Kantor, 2016; Miao et al., 2011; Morrel-Samuels et al., 2016). Further consideration of implications for practice can be found in Appendix A.
IV. DISCUSSION

For many cities across the United States, urban violence is experienced as an epidemic, posing a significant threat to public health and safety. This violence is found to affect individuals, families, and communities through fatal and nonfatal injuries, impacts on mental health, heavy economic burdens, and the disruption of neighborhood life. Recognizing the continuing issue of urban violence, researchers, policymakers, and practitioners have re-emphasized the importance of identifying effective strategies for violence reduction and prevention (e.g. Abt, 2019).

A. Summary Tables

The tables below provide a general summary of our assessment of the effectiveness of the violence reduction strategies reviewed within this document. To judge this evidence base, we consider the amount and quality of the evidence available for each strategy. Based upon this evidence, we provide an assessment regarding the overall effectiveness of each strategy in reducing violence both in the short-term (i.e., one-year post-intervention, or less) and the long-term (i.e., greater than one-year post-intervention). Our methods for classification across these fields are presented in Table 1 below. As shown in Table 1, each strategy is assigned a label of “low,” “moderate,” or “high” across the four key areas mentioned above. Additionally, the labels of “unknown” or “mixed” are applied in reference to the short- and long-term impacts observed in the available evaluation literature for each strategy.

Table 1. Criteria for Classification of Violence Reduction Strategies

<table>
<thead>
<tr>
<th></th>
<th>“LOW”</th>
<th>“UNKNOWN”</th>
<th>“MIXED”</th>
<th>“MODERATE”</th>
<th>“HIGH”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount of Evidence</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>5 - 10 studies examining impact of strategy on violence</td>
<td>&gt; 10 studies examining impact of strategy on violence</td>
<td></td>
</tr>
<tr>
<td><strong>Evidence Rigor</strong></td>
<td>Research relies primarily on pre/post analyses, lacking comparable group and/or statistical controls</td>
<td>N/A</td>
<td>N/A</td>
<td>Use of quasi-experimental designs and/or singular experimental evaluation</td>
<td>Multiple experimental evaluations</td>
</tr>
<tr>
<td><strong>Short-Term Impact</strong></td>
<td>Low amount of evidence and rigor available; approach not adequately tested</td>
<td>Mixed evidence produced from quasi-experimental studies</td>
<td>Consistent evidence produced from quasi-experimental studies</td>
<td>Consistent evidence produced from experimental evaluations</td>
<td></td>
</tr>
<tr>
<td>(≤ 1-year post)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Long-Term Impact</strong></td>
<td>Low amount of evidence and rigor available; approach not adequately tested</td>
<td>Mixed evidence produced from quasi-experimental studies</td>
<td>Consistent evidence produced by quasi-experimental studies</td>
<td>Consistent evidence produced from experimental evaluations</td>
<td></td>
</tr>
<tr>
<td>(&gt; 1-year post)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Those strategies found to have a high amount of evidence are supported by a larger body of research (i.e., more than ten studies). For evidence to be considered high in rigor, the available research must consist of several experimental evaluations. To demonstrate high short- and long-term impacts, the evidence produced from these experimental evaluations must show consistent violence reduction benefits associated with the strategies. Strategies found to have a moderate amount of evidence are based upon five to ten evaluations. For the available evidence to be considered moderately rigorous, the research must consist of primarily quasi-experimental studies or a singular experimental evaluation. The short- and long-term impacts of a strategy are considered moderate when evidence produced from quasi-experimental evaluations demonstrate consistent violence reduction benefits. Strategies labeled as “low” across these fields are those that are found to be supported by a small body of literature (i.e., fewer than five studies). Evidence low in rigor is produced by pre/post or time series analyses lacking a comparable control group and/or use of statistical controls. When the available research consists of weaker evaluations, providing limited evidence of a strategy’s effectiveness, the short- and long-term impacts of that strategy will be labeled low as well. Finally, the short- and long-term impact of a strategy is labeled as unknown when the strategy has not been adequately tested; that is, when knowledge of the violence reduction effects of a strategy is based upon a low amount of evidence produced from less rigorous evaluations. In contrast, the label “mixed” suggests inconsistent evidence of violence reduction effects produced from quasi-experimental studies.\textsuperscript{21}

As summarized in Table 2, the available research provides a fairly larger evidence base for police-led violence reduction strategies. Several offender-focused, place-based, and community-based strategies, including focused deterrence, project safe neighborhoods, hot spots policing, and broken windows policing, have been examined frequently, with evaluations employing moderately to highly rigorous research methodologies. As a whole, this evidence suggests that police-led strategies characterized by a high level of focus on specific people and places prone to violence often produce crime prevention benefits. Notably, newer and lesser studied police-led interventions – such as custom notifications, place-based investigations, and procedural justice – could be promising approaches for the prevention of urban violence. However, additional research is needed before making conclusions regarding the overall effectiveness of these individual strategies. In turn, although evaluations of police-led, community-based approaches (e.g., community-oriented policing) demonstrate limited capacity to reduce violence, community-based efforts by the police can facilitate police-community relations, public trust in police, and perceptions of police legitimacy.

\textsuperscript{21} It should be noted that the classifications assigned to each strategy are products of the general overview of the research evidence presented within this document, not from a systematic assessment of all available research literature pertaining to the strategies of interest.
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Amount of Evidence</th>
<th>Evidence Rigor</th>
<th>Evidence of Short-Term Impact</th>
<th>Evidence of Long-Term Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offender-Focused</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Gang Enforcement</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Firearm Crackdowns</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Focused Deterrence</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Project Safe Neighborhoods</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Custom Notifications</td>
<td>Low</td>
<td>Low</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stop, Question, and Frisk</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Place-Based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot Spots Policing</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Unknown</td>
</tr>
<tr>
<td>Place-Based Investigations</td>
<td>Low</td>
<td>Low</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td><strong>Community-Based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community-Oriented Policing</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Broken Windows Policing</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Procedural Justice Policing</td>
<td>Low</td>
<td>Low</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Notably, there are multiple ways to judge the “effectiveness” of a strategy. Although Table 2 uses violence reduction as the primary measure for the efficacy of these police-led strategies, it is important to consider whether their implementation has the capacity to strengthen police-community relations, or produce unintended consequences, including reducing citizens’ positive sentiment towards the police and/or acerbating poor police-community relations. Indeed, police-led strategies that rely on enhanced enforcement have been observed to have negative effects ranging from threatening public perceptions of police legitimacy to infringing upon citizens’ constitutional rights (e.g., New York City’s stop, question, and frisk, *Floyd v. City of New York*, 2013). This is not to say that police-led strategies that involve aggressive enforcement tactics targeting certain people, places, and behaviors should not be used. However, it is imperative to consider the balance between police effectiveness and equity. Police-led violence reduction efforts must be applied strategically within communities, tailored to mitigate violent crime occurring within specific places and among specific people, and the implementation of evidence-based strategies for violence reduction should be accompanied by tactics observed to enhance police-community relations (e.g., community-oriented policing, procedural justice policing). This point is discussed further below.

Table 3 shows there is a less overall evidence for public health/community-led initiatives for violence reduction. This is partially a product of the focus on longitudinal research designs that are considerably more expensive and time-intensive to implement and evaluate. However, the available research suggests there are promising community-led strategies for violence prevention, particularly when high degrees of model fidelity and stakeholder collaboration are achieved. More research is needed, however, to expand upon the impact of public health community-led violence reduction before strong conclusions can be made. The reviewed initiatives that partner with academic research teams involved high levels of methodological rigor and evidence-based practices that guide the entire intervention process – these community-research collaborations are crucial to advancing the implementation quality and effectiveness of community-led violence reduction initiatives. Public health-based initiatives intervene at multiple levels of the social ecological model, but their evaluations of effectiveness have not, for the most part, separately examined the impact of individual program components. Given the focus of public health model approaches on a community-wide impact on violence, it is important to understand whether all program components bear out their hypothesized results at their respective intervention level.

### B. Elements of Effective Violence Reduction Initiatives

Collectively, the review of this research identifies important lessons for police agencies and communities that are considering implementation of particular violence reduction initiatives. These lessons have been reiterated as the evidence base for effective violence prevention and reduction strategies has become more developed (Abt & Winship, 2016; Eck & Maguire, 2000; Weisburd & Eck, 2004; Weisburd & Majmundar, 2018). Our findings from the review of the available research are consistent with previous assessments of the literature, identifying several shared elements among effective violence reduction interventions (see Abt & Winship, 2016).
Table 3. Impact of Community-Led Strategies on Violent Crime

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Amount of Evidence</th>
<th>Evidence Rigor</th>
<th>Evidence of Short-Term Impact</th>
<th>Evidence of Long-Term Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communities that Care</td>
<td>Moderate</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Youth Violence Prevention Centers</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Cure Violence</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
<tr>
<td>Promoting School-Community-University Partnerships to Enhance Resilience</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Hospital-Based Violence Intervention Programs</td>
<td>High</td>
<td>High</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
<tr>
<td>OJJDP Comprehensive Gang Model</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Public Health

Offender-Focused / Public Health Hybrid
First, violence is highly concentrated at micro places, as well as among a relatively small number of chronic offenders (Farrington & West, 1993; Howell et al., 1995; Sherman et al., 1989; Weisburd et al., 2012). Effective violence reduction interventions leverage these empirical observations to target the people and places at greatest risk for violence. Indeed, focusing police and community resources on the behaviors of high-risk individuals and criminal opportunities at high-risk places is observed to increase an intervention’s efficacy in reducing crime and disorder (Weisburd & Eck, 2004; Weisburd & Majmundar, 2018). Second, effective violence reduction interventions typically involve a proactive approach to violence reduction. Specifically, these strategies go beyond responding to violent crime after it has occurred, instead aiming to prevent the occurrence of violent crime altogether. For many interventions, this involves addressing the underlying factors (e.g., individual risk factors, group dynamics, place-based opportunity structures) that produce violence through active engagement with high-risk populations and places (Weisburd & Majmundar, 2018).

Third, successful violence reduction strategies consider the issue of legitimacy (i.e., perceptions of intervention legitimacy) across the planning, implementation, and assessment stages of the intervention, creating a feedback loop between agents of formal (e.g. the police) and informal social control (e.g. community residents) (Abt & Winship, 2016). Creating and maintaining perceptions of intervention legitimacy is pertinent to the sustainability of any violence reduction strategy through its impact on community support and cooperation. For police-led interventions, this encourages the implementation of community-based strategies (e.g. procedural justice policing, community-oriented policing) in tandem with more focused violence reduction initiatives (e.g. focused deterrence, hot spots policing). Although police-led, community-based strategies cannot be characterized as evidence-based practices for violence reduction, their impact on public perceptions of police suggest their utility when implemented alongside other evidence-based strategies. Research suggests non-crime outcomes produced from these community-based initiatives (e.g. satisfaction with police, confidence in police, trust in police) could produce crime control benefits in the long-term (Weisburd & Majmundar, 2018).

Successful violence reduction interventions are also observed to establish a “network of capacity” consisting of dense, productive relationships among the organizations/agencies involved in strategy implementation (see, e.g. Braga et al., 2019a). This may include the development of accountability structures and plans for the sustainability of the intervention (see Engel et al., 2013). Notably, interventions that fail to consider operational capacities typically struggle to implement and sustain violence reduction strategies. Additionally, effective interventions are observed to be founded upon theory – specifically, a well-defined and understood theory of change that can guide the implementation and assessment of the violence reduction intervention (Abt & Winship, 2016). Understanding the causal mechanisms for violence reduction enhance the focus of interventions, increasing the efficiency and effectiveness of violence reduction efforts.

Furthermore, successful violence reduction interventions incorporate partnerships involving the active engagement of community stakeholders (i.e., criminal justice and non-criminal justice stakeholders) that work together to develop a response to violent crime. Notably, these partnerships can facilitate the development a broad range of responses to violent crime. For police-led interventions, these can include partnerships with place managers, religious groups,
social services, and community-based organizations. For community-led initiatives, this element highlights the importance of collaboration with law enforcement agencies to address the problem of urban violence (see Cook, 2018) – suggesting that violence prevention should incorporate both public health and criminal justice approaches to identify and provide treatment to at-risk offenders, as well as deter would-be offenders from future acts of violence.

Finally, the current review of the research evidence would suggest an additional element for successful violence reduction strategies: the incorporation of research throughout the analysis of the violence problem, strategy development, implementation of the strategy, and assessment of the impacts of the strategy. Indeed, the use of research throughout the process of violence reduction can facilitate the understanding of the underlying causes of violence within a community, encourage the use of evidence-based practices for violence prevention, and aid in model fidelity to those practices when implemented in new contexts. Furthermore, the incorporation of research builds the evidence base for violence reduction, providing insight for future efforts.

C. Future Research

Although the available research provides important considerations regarding the effectiveness of various police- and community-led violence reduction strategies, much remains to be learned. In this vein, we turn to the limitations of the current evidence base and important next steps for future research.

Recent trends in research toward the use of more rigorous experimental or quasi-experimental designs for the evaluation of violence reduction strategies is encouraging. Indeed, as the literature base becomes populated with studies characterized by higher levels of internal validity, we become more confident in observations of the violence prevention/reduction benefits produced by the interventions under evaluation. Research efforts must continue in this direction. As it stands, many violence reduction strategies have not been evaluated in a methodologically rigorous manner, precluding strong conclusions regarding their effectiveness. To facilitate the expansion of the evidence base for violence reduction strategies, researchers, practitioners, and policymakers must consider the inclusion of research prior to the development and implementation of the strategy. Incorporating research throughout the phases of problem assessment, strategy development and implementation, and evaluation can facilitate the application of evidence-based practice while adding to the growing knowledge base of effective violence reduction strategies.

Future efforts for violence reduction implementation and evaluation should also consider the strategic collection and analysis of multiple sources of data to measure violence. Too often, the reliance on official crime data has limited the understanding of the prevalence and potential causes of violence in the community. The augmentation of police records with information sources such as hospital emergency room data and self-report data (among others) can provide a more accurate assessment of the nature of violence problems within the community, facilitating the customization of prevention efforts. For evaluation, the collection and analysis of these data can provide greater insight on the impact of the violence reduction strategy on specific crime outcomes. Currently, the reliance in the extant research, particularly among police-led violence
reduction evaluations, on broader crime outcomes (e.g., “overall crime”) limits our understanding of intervention effects on violent crime, specifically. Future research may also consider the collection and analysis of data documenting community outcomes beyond crime. Specifically, the use of community surveys is suggested to assist in the understanding of violence reduction strategies’ impact on public perceptions of police, safety, and violence within the community. Researchers further suggest the need for in-depth ethnographic analyses to provide insight into the process of changing norms and attitudes related to violence both among individuals and across the communities targeted by violence reduction programs.

Research consistently documents the role of program fidelity and quality of implementation on program effectiveness (Maguire et al., 2018; Matjasko et al., 2012; Whitehill et al., 2013). Despite this empirical observation, process evaluations of the development and delivery of violence reduction interventions are not common. Future studies of violence reduction efforts would benefit from consistent measurement of model fidelity to accompany evaluations of program effectiveness. Notably, this work could assist in the identification of barriers, as well as successes, in the implementation of specific violence reduction strategies, informing the future application if these interventions within communities.

Relatedly, more research is needed to pinpoint the elements of each violence reduction strategy that are most important in producing violence prevention benefits. Many of the strategies identified in this review involve multi-faceted approaches for violence reduction. Additionally, in most cases, strategies are implemented simultaneously with other initiatives designed to address violence. Future impact evaluations should document and assess each strategic/programmatic element separately, as well as the overall violence reduction strategy to facilitate the specification of the content of interventions most likely to affect change. Notably, understanding the effective elements of these strategies, by unpacking the “black box” of what works, can reduce costs (e.g. investment of time, resources, money into less impactful elements) associated with the implementation and sustainment of strategies over time (Weisburd & Majmundar, 2018). Furthermore, this research could provide greater specificity on which interventions are most effective when applied to specific circumstances (e.g. location type, target population, nature of violence, etc.).

Finally, for many of the violence reduction strategies presented in this review, more research is needed to understand the theoretical mechanisms – that is, the causal mechanisms of change – that the strategies are founded upon. In many cases, these mechanisms have not been systematically tracked (via process evaluations) or assessed, limiting our understanding of the logic model (i.e., cause and effect model) that facilitates the efficacy of different violence reduction interventions. Finally, the long-term violence reduction benefits of many police- and community-led interventions have not been evaluated. This limitation is particularly profound in the evaluation of police-led violence reduction strategies. Future research should incorporate longitudinal research designs to provide a better understanding of the maintenance of violence reduction interventions, as well as the sustainability of violence prevention benefits produced over time.
V. APPENDIX A. IMPLICATIONS FOR PRACTICE

The available research provides important insights regarding effective practices for many of the violence reduction strategies presented within this review. These implications for practice are presented below.

Focused Deterrence

In-depth descriptions of the implementation of focused deterrence initiatives and their associated outcomes provide substantial insight on key considerations for focused deterrence in practice. These discussions provide important lessons for “getting implementation right” (Braga et al., 2019a, p. 244). Key lessons and considerations for the application of focused deterrence strategies include:

- Programs focused on higher risk youth are more likely to be successful. Aligning with evidence-based corrections interventions (see Andrews & Bonta, 2006), focusing on high-risk offenders is a key element predicting program success.

- The group dynamics of violence can be leveraged to address violent crime within the community. The group structure provides a vehicle for communication, facilitating the dissemination of the deterrence message beyond the individuals within offender notification meetings. The group structure is also a potential source of control. Specifically, group-focused enforcement strategies encourage criminal gangs/groups to police themselves to avoid becoming the target of a multi-agency enforcement effort.

- Successful focused deterrence programs follow a deliberate strategy development process. Consistent with the problem-solving process, the focused deterrence framework requires police agencies to conduct research on the nature of targeted crime problem (analysis) and to tailor a response to the identified underlying conditions of the problem that considers the operational capacities of criminal justice, social service, and community-based agencies.

- The successful implementation of focused deterrence strategies requires the establishment of a “network of capacity” consisting of dense and productive relationships among the diverse partnering agencies. Cities without robust networks in place have found it difficult to implement and sustain focused deterrence strategies.

- Local jurisdictions should develop accountability structures and plans for sustainability prior to implementing the focused deterrence strategy – potentially by establishing a governing structure that extends beyond the working group and creating a performance maintenance system for intelligence gathering and analysis as well as keeping partners engaged in the project.
**Hot Spots Policing**

The large evidence-base for hot spots policing interventions highlights important lessons for effective violence reduction. The key considerations this literature provides for practice include:

- Crime is concentrated at place (micro locations). This finding is consistent across neighborhoods and across time. Focusing police resources at those high crime places presents an efficient and effective strategy to reduce crime.

- Hot spots policing interventions that incorporate problem solving methods (i.e., scanning, analysis, response, assessment) and/or implement problem-oriented strategies (e.g. situational crime prevention) produce larger crime prevention benefits relative to interventions that increase traditional enforcement activities at high-crime places.

- Hot spots policing may produce fewer crime control benefits for violent crime relative to property crime, drug offenses, and disorder offenses. As such, hot spots policing should not be the sole strategy used to address urban violence.

**Place-Based Investigations**

Drawing from their experiences with the implementation of place-based investigations in Cincinnati, Ohio, Madensen and colleagues (2017, p. 15) provide several recommendations for law enforcement agencies to facilitate the effective use of place-based investigations, including:

- Create investigative teams, supported directly by the chief executive and designated command staff, with experienced detectives who can gather community intelligence, manage confidential informants, and conduct or coordinate undercover work.

- Establish formal partnerships and hold place-based investigations review board meetings with representatives from all city departments to gather intelligence and leverage intervention resources.

- Partner with city attorneys to address nuisance properties and non-compliant owners.

- Educate investigative teams, review board members, and city attorneys on crime place theory and research.

- Train detectives to uncover crime place networks and gather place-based intelligence.

- Develop mechanisms to systematically collect intelligence from community members, patrol officers, and other specialized police units.

- Partner with advanced crime analysts to develop methods for identifying and tracking changes in and around micro-location hot spots.

- Integrate place-based investigations with focused deterrence strategies whenever place and offender networks overlap in time and space.
Community-Oriented Policing

Although there remains much to be learned regarding the definition, application, and evaluation of community-oriented policing in practice, several points should be considered for the implementation of community-oriented policing (COP) as a community-based violence reduction approach:

- Given the available evidence, COP cannot be framed as an evidence-based approach for violence reduction. However, its impact on public perceptions of police suggests it can be useful to implement alongside other evidence-based strategies. COP is found to enhance citizen-focused outcomes such as satisfaction with and confidence and trust in the police. It is possible these non-crime outcomes could produce crime control benefits in the long-term.

- The implementation of COP as an organizational framework is found to face many practical barriers. However, if implemented fully, COP can provide a foundation upon which other evidence-based policing strategies can be incorporated. Research suggests the successful implementation of COP requires support from leadership, training for officers to foster buy-in and support for COP priorities, and revision of performance evaluation to reinforce officer/agency commitment to COP.

- Agencies should examine their current strategies for COP, including the structures and systems within their organization that have been instituted to achieve COP. Strategies should be based on effective community partnerships and problem solving as outlined by the available research. Additionally, it is important that agencies consider their definition of “community,” and assess how the community prioritizes/assists in responses to crime.

Broken Windows Policing

While more evaluations of disorder policing strategies are needed to clarify the existing body of research, current empirical research suggests potentially positive outcomes. Indeed, several key points of consideration are identified that may inform police application of disorder policing:

- Strategies that focus police attention on social and physical disorder can have modest impacts on violent crime. Furthermore, these strategies may reduce fear of crime within communities and strengthen social controls that allow residents to maintain order.

- The type of disorder policing strategy matters; aggressive enforcement of disorderly behaviors is less likely to generate crime control benefits and may in fact have a reverse effect by increasing fear of crime.

- The application of disorder policing can be perceived by community members as balancing a fine line between lawful enforcement to ensure safety and an over-policing of targeted areas. Proactive interventions that encourage aggressive enforcement can damage police-community relations. Agencies may be able to combat this issue by adopting a “community coproduction” model, relying on the involvement of citizens and community stakeholders to achieve disorder and crime reduction goals.
Procedural Justice Policing

Although the role of procedural justice policing in violence reduction is less certain, the available research suggests the value of this strategy beyond crime prevention and control. As such, law enforcement agencies should consider several key points related to the implementation of procedural justice policing, as described below.

- In practice, whenever police agencies adopt a new violence reduction strategy, they should explore how to incorporate components of procedural justice and consider whether the strategy is likely to increase or damage public perceptions of legitimacy of the police. A number of studies find that unjust interactions with police are far more salient for shaping perceptions of legitimacy than procedurally just encounters (e.g. Skogan, 2006a). Therefore, although positively influencing public perceptions of legitimacy is a complex process, care must be taken to not negatively influence perceptions of legitimacy unintentionally.

- Police agencies that espouse procedural justice policing need to consider how these types of strategies will be measured. That is, the focus on the process of a police-citizen interaction is more subjective and difficult to quantify in comparison to traditional outcome-based performance measures of officers. This raises the possibility of a police agency publicly embracing a procedural justice strategy but practically being unable to ensure it translates to officer interactions with the public.

Community-Led, Public Health Violence Prevention Interventions

Although community-led interventions are necessarily tailored to each individual community’s context, there is some scholarly agreement about factors that contribute to the likelihood of intervention effectiveness. These factors, identified below, provide important insight for the future application of community-led violence reduction strategies.

- Key community stakeholders must be integrated throughout the entire intervention process from initial problem assessment and goal identification, to program selection, implementation, and evaluation.

- Diverse individuals, groups, and organizations must collaborate effectively, identify capable leadership, and maintain focus on commonly identified goals.

- Developing community capacity for mobilization and collaboration is often bolstered through the establishment of a community-academic research team partnership, whereby the community is engaged for its local knowledge and the expertise of the research team is valued for its technical assistance and professional guidance.

- Most scholars agree that it is more effective for the community to take ownership of the entire intervention process, but sometimes the existing community infrastructure and resources necessitate the research team taking a more active role.
VI. REFERENCES


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