

International Initiative for Impact Evaluation



The impact of policing interventions on violent crime in developing countries

**3ie Systematic Review SR3.1277
Protocol**

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1. Background for the review

1.1. Violent crime

Violence is a global public health problem with complex causes at the individual, family, community, and societal levels (World Health Organization [WHO], 2002a). Worldwide, the direct impact of violence is estimated at 4400 deaths per day and many thousands of injuries (Krug, Mercy, Dahlberg, & Zwi, 2002), and the economic cost of this violence is estimated to be between \$95 and \$163 billion per year (Geneva Declaration Secretariat, cited in Willman & Makisaka, 2010). Direct costs of violent crime victimisation include those related to health care, lost work productivity, law enforcement and prosecution of offenders, rehabilitation, and repairing damage to property (Fajnzyblber, Lederman, & Loayza, 2002; Hofman, Primack, Keusch, & Hrynkow, 2005; WHO, 2002a). For victims, mortality, physical and psychological damage, disability, and social problems are immediate and long-lasting outcomes of violence (WHO, 2002a). The indirect impact of violent crime varies across countries.

The World Health Organization (WHO) defines violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.” (WHO Global Consultation on Violence and Health, cited in WHO, 2002b, p. 5). Individual level risk factors include age and gender, while individual level protective factors centre on social connections with family, friends or school groups (Willman & Makisaka, 2010). Family risk factors for violent crime include harsh parenting styles, physical or psychological abuse, and the involvement of other family members in crime (United Nations Office on Drugs and Crime [UNODC], 2008). Communities are at risk of violence when violence has historically been present in the area, when firearms are easily available and sections of the population have been trained in their use (UNODC & the Latin America and the Caribbean Region of the World Bank, 2007). Weakness of state security institutions, including the criminal justice system and the military, is also associated with higher levels of violence at the societal level (UNODC, 2005). Rapid urbanisation, low education levels, and high income inequality, especially when divided along religious, ethnic, or racial lines, further increase the risks of violence in a society (Willman & Makisaka, 2010).

Developing countries are particularly affected by violent crime, with interpersonal violence a leading cause of death and disability (Hofman et al., 2005; Liebling & Kiziri-Mayengo, 2002; Morrison, Ellsberg, & Bott, 2007; Seedat, Van Niekerk, Jewkes, Suffla, & Ratele, 2009). In addition, violent crime can indirectly suppress growth in developing countries when local or international agents are influenced, by their perceptions of violent crime in the region, to refrain from investing socially or economically in developing the area (Akpokodje, Bowles, & Tigere, 2002). Fear of violence prohibits development by preventing local citizens from travelling to work and school, encouraging capital flight, increasing brain drain as educated citizens leave troubled areas, and lowering social cohesion (Willman & Makisaka, 2010).

The World Health Organization typology of violence categorises violent acts into self-directed violence, interpersonal violence and collective violence, and notes that whilst the nature of the violent act may be similar across categories, the causal mechanisms and motives for each category of violence are very different (WHO, 2002b). The nature

of effective interventions will also differ across categories, and therefore the effectiveness of interventions needs to be reviewed separately for each category. Whilst collective violence is a clear threat to the stability and growth of developing countries, the complexities of the specific contexts of collective violence—such as war, state violence, genocide, or terrorist activity—mean that interventions to combat collective violence are likely to be dependent on socio-political context, and are considered to be outside the scope of the present review. Our review focuses on interpersonal violent crimes in developing countries. We define interpersonal violent crime as those acts of violence—such as assault, homicide, rape, kidnapping, sexual assault, and maltreatment—committed by one person or small group against another person or small group.

There are many different types of interventions that seek to reduce interpersonal violent crime in developing countries, and several different ways to classify interventions. Interventions can be broadly separated according to the point at which the prevention program is implemented. Programs that aim to prevent or reduce violent crime can be grouped into primary, secondary or tertiary interventions (Van Der Merwe & Dawes, 2007). Primary prevention programs are broad based and aim to prevent the occurrence of a problem or behaviour, secondary prevention programs focus on individuals at risk of developing the behaviour, and tertiary prevention programs focus on reducing the problem behaviour in individuals who already exhibit the behaviour (for example, youths already displaying violent behaviours) (Van Der Merwe & Dawes, 2007). Interventions can be classified according to whether they address violence at either the individual, family or community levels; indeed, it is argued that the most successful interventions are those that address all three levels (Van Der Merwe & Dawes, 2007). Interventions can also be classified according to the societal sector in which they are implemented. Social interventions include parent training programs, school-based education programs, family enrichment, gender equality education, life skills training programs, and edutainment initiatives. Economic-based interventions that target violent crime problems include microfinance credit schemes and raising the price of alcohol. Health sector programs include screening and referral programs, victim advocacy and support groups, and psychological or medical interventions. Programs often involve coordinated, multi-sector responses involving multiple agencies working together to reduce violent crime (WHO, 2002a).

Justice system interventions can be defined as interventions that focus on preventing or reducing violent crime and actively involve at least one entity of the justice system (e.g. courts, corrections, police, legislation), or a surrogate organisation providing justice system services (e.g. an NGO intervening to provide conflict mediation services). These organisations may be intervening to provide surrogate justice services (for example, providing conflict mediation services to disputants within the country) or to build justice system capacity (for example, by providing advice or training to a newly formed police force). These supplementary interventions are an important part of the violence prevention portfolio in developing countries, where justice systems are often under-resourced and struggle to contain large problems such as drug trafficking (e.g. Latin America and the Caribbean) or terrorism (e.g. Afghanistan, Pakistan) while dealing with local violent crime.

Justice system interventions may include:

- Legislative changes to criminalise violent behaviour or strengthen penalties for violent crime;
- Police actions such as community policing, increased patrols, police training programs, and creation of specialist police forces;
- Removal of risk factors for violence through enforcement of bans on alcohol and firearms;
- Reformation of the court system through legal aid systems, alternative processing of violent offenders and alternatives to formal court processes such as restorative justice programs.

The largest, and arguably the most important, component of the justice system that focuses on efforts to reduce violent crime is policing. Indeed, the preliminary results of our scoping review indicate that the largest category of justice system interventions that address interpersonal violent crime in developing countries relate to policing, with over one third of documents describing justice system interventions reporting on the areas of police reform, activity, training, surveillance and non-state policing. As such, the focus of our review is to synthesise the evaluation literature that focuses on policing interventions that target violent crime in developing countries. We will include policing interventions that work at primary, secondary or tertiary levels, and interventions that focus on individual, family or community factors.

1.2. Policing in developing countries

In developed democracies, police reform has generally followed what Kelling and Moore (1988) describe as three major eras of policing: the political era, the professional era and the community policing era. Whilst policing scholars debate the detail of these eras in policing history (see Bayley, 1994; Greene & Mastrofski, 1988; Skogan, 1990), they argue that policing in the 21st century is most likely characterised by a new era of policing (Bayley & Nixon, 2010; Mazerolle & Ransley, 2005; Stone & Travis, 2011). Policing in democratic societies has largely moved from being highly politicised agencies—responding to calls for service based on political demands, deriving their legitimacy from local political authorities, with a broad mandate to deal with a range of social issues from hunger to homelessness to riot control—to going through the professionalisation of the occupation during the 1970s, to establishing the foundations for community policing during the late 1980s and early 1990s. We also note that different police agencies progressed through these eras at different time periods in developed democracies.

We argue that developed country police agencies, which have experienced all three eras of change and development over a period of nearly 100 years, are situated very differently to police agencies in emerging democracies. Policing and police agencies in many emerging democracies and developing countries have very different histories to those in the developed world: often times developing countries have long histories of military or totalitarian rule, with no experience of a civilian police (Brogden, 2002). Many countries have experienced only great politicisation of their policing services and have skipped over the professionalisation era in an effort to quickly establish community policing approaches as part of rapid state building activities (see, for example, Goldsmith & Dinnen, 2007; Goldsmith & Harris, 2010). Moreover, most developing countries lack the physical infrastructure, governance mechanisms and social norms that form an essential background to the successful implementation of policing interventions in

developed democracies, and they often lack a strong judiciary to regulate and constrain policing behaviour.

This review will focus on policing interventions and their ability to prevent or reduce violence in developing countries. We use the term “developing countries” to refer to economically developing countries, defined as developing according to World Bank country classifications (<http://data.worldbank.org/about/country-classifications/country-and-lending-groups>). However, we acknowledge that there can be economically developing countries that are established democracies and economically developed countries that are “developing” democratically. Despite the continuity implied by the terms “developing” and “developed,” we propose that there are significant and qualitative differences between policing initiatives in western democracies and those that are implemented in developing countries. The fundamental difference lies in the institutional histories and capacities of police agencies in developed and developing countries.

The contextual differences in intervention implementation provide a strong justification for a review exclusively focused on developing country evidence; those strategies that have been deemed successful for policing in developed countries are not necessarily appropriate for developing countries. These countries often have low police professionalism, poor relations between the police and the public, under-equipped police services and an unstable political and/or socio-economic situation, and, in some cases, low community enthusiasm and participation (Eijkman, 2006; Frühling, 2007, 2011).

We recognise that there are likely to be few high-quality experimental and quasi-experimental evaluations of violent crime interventions in developing countries. Developing countries struggle to provide accurate and reliable data on criminal justice processes, lack research resources, have varying culture-specific definitions of violent crime, and, in many cases, seriously under-report certain types of crime such as sex- and race-based violence. Ethical considerations associated with researching violent crime in developing countries also contribute to the dearth of research (Neugebauer, 1999; WHO, 2002a). Much of the existing evidence is not available in a published, peer-reviewed form, and often essential information is not reported. No systematic review has combined experimental and quasi-experimental evidence from developing countries on the impact of violent crime interventions. The sole reviews conducted on the topic have been qualitative and exploratory in nature (Akpokodje et al., 2002; Willman & Makisaka, 2010). Despite the likely data limitations, we consider the topic urgent and important enough to warrant a full systematic review of experimental and quasi-experimental impact evaluations.

Overall, we argue that the different histories and structural context of policing in developed and developing countries are so fundamentally different that we will only include policing interventions that target populations in developing countries. We do not limit the geographic focus of the review, except to exclude countries defined as “developed” by the World Bank. This exclusion is intended to limit the population under study and not to necessarily limit the geographic region under study.

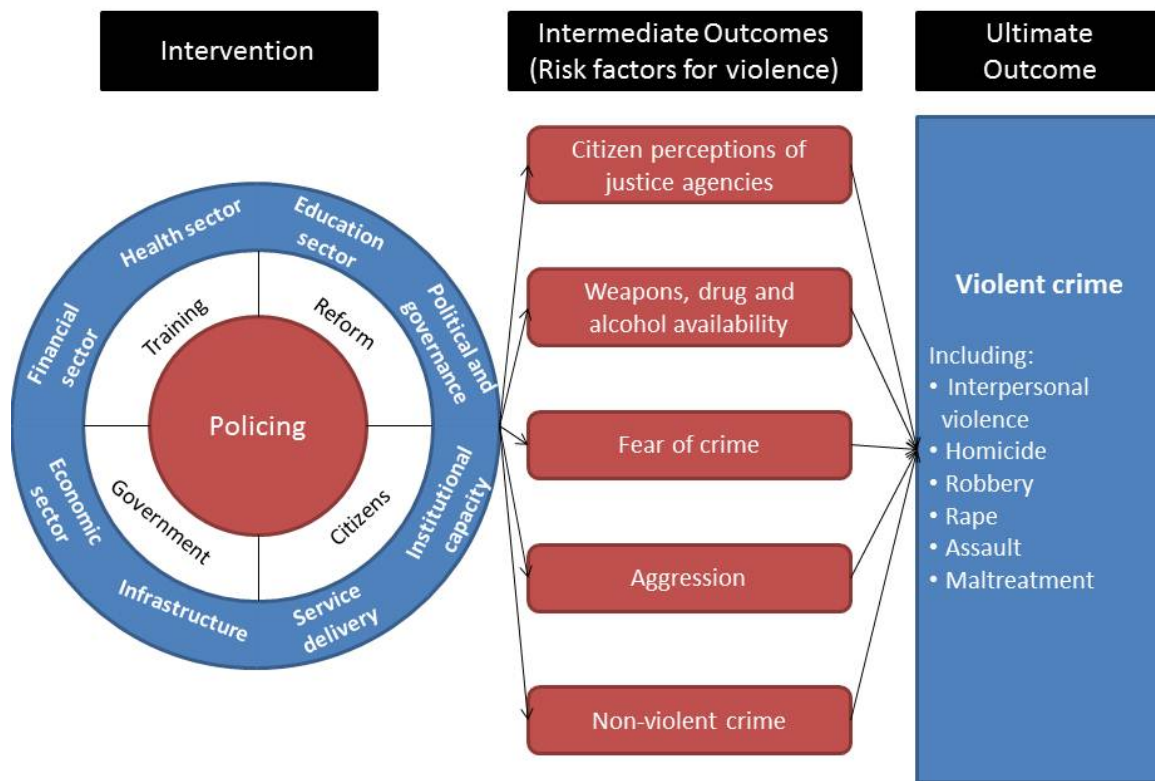


Figure 1. Policing intervention logic model

Figure 1 depicts our proposed logic model for how policing interventions can be expected to influence violent crime. As seen in Figure 1, policing interventions (the inner circle) are implemented within a range of contexts (the middle circle), such as those provided by local and foreign governments, local citizens, levels of police training and the degree of institutional reform. The interventions included in this review occur within the context of the police system, but may include elements, partners, or contextual factors from a range of other systems, including health, finance, education, governance (represented by the outer circle in the interventions section of Figure 1). This range of interventions immediately impacts a set of intermediate outcomes, including fear of crime, aggregate crime, citizen perceptions of justice agencies, and other outcomes. The intermediate outcomes presented in the logic model in Figure 1 are distinct from outcomes targeted by non-policing interventions; for example, a purely education-based intervention may target school attendance, while a purely finance-based intervention may target poverty. These types of non-policing interventions would not be included in the current review, because their targeted intermediate outcomes are not part of the logic model underlying the intervention’s impact on violent crime. In the final review report we will investigate using evidence from the included studies to create a more detailed logic model that depicts the theory of change underpinning the intervention design.

2. Objectives

There are two key objectives to this review.

1. The first objective is to review the evidence on the effectiveness of policing interventions in reducing interpersonal violent crime in developing countries, and whether effectiveness differs according to intervention type and across different populations.
2. The second objective is to assess the reasons that policing interventions addressing interpersonal violent crime may fail or succeed in developing countries.

3. Methodology

3.1. Criteria for inclusion and exclusion of studies in the review

3.1.1. Types of participants

The intervention must be implemented in a developing country, as defined by the World Bank (see Table 1)³. If the outcomes of interest are measured at an aggregate level, the units of analysis will be any geographic place (e.g. community, city, province, state, region, or country) within a developing country. If the outcomes of interest are measured at an individual level, either victim or perpetrator, the unit of analysis will be the individual. We will separate outcomes by unit of analysis in the meta-analysis stage of the review using subgroup analysis.

3.1.2. Types of interventions

To be eligible for review, the intervention must be implemented by public police and aim to reduce interpersonal violent crime. The intervention may be police-led or the police may work in conjunction with other agencies.

3.2. Comparison/Study design

The two objectives of the review will be examined using separate methodologies. We discuss the appropriate study designs for each review component below.

Objective 1 is to review the evidence on the effectiveness of policing interventions in reducing interpersonal violent crime in developing countries, and whether effectiveness differs according to intervention type and across different populations. To address objective 1, we will synthesise the results of experimental and quasi-experimental research evidence using a meta-analytic approach. To be included in a quantitative synthesis of effectiveness using meta-analysis, studies must use an experimental or quasi-experimental evaluation design with a valid comparison group. Acceptable study designs include randomised trials, natural experiments, time-series designs, regression discontinuity designs, and any quasi-experimental design with a matched or non-matched comparison group. We anticipate that some evaluations may be in the form of time-series designs, and may not include a valid comparison group. We will include time-series evaluations without a comparison group in our review; however, we note that the

³ <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>

quality of these studies may be lower than that of studies that include a valid comparison group, and we will conduct sub-group analysis using study quality as a predictor variable during the synthesis stage. Only studies that assign treatment and collect data at a similar geographic level (e.g. municipality) will be included in the meta-analysis.

Objective 2 is to assess the reasons that policing interventions addressing interpersonal violent crime may fail or succeed in developing countries. To address objective 2, we will provide a thematic narrative review of the research. Studies will be considered eligible for a thematic narrative review of the reasons for intervention success or failure if they evaluate the implementation or the effectiveness of a policing intervention to reduce interpersonal violent crime in developing countries. Studies included in the narrative review will not be restricted according to comparison group or study design and can include any type of quantitative or qualitative studies.

3.3. Outcomes

The intervention must aim to impact interpersonal violent crime. We will only include evaluations of policing initiatives that either (1) are explicitly aimed at impacting interpersonal violent crime, as stated in the source document; or (2) record some type of interpersonal violent crime as an outcome.

We will focus on violence at the interpersonal level, including acts or omissions perpetrated by an individual or small group against another individual or small group. The category of interpersonal violence includes most behaviours typically considered violent crime across countries and jurisdictions, such as homicide, rape and assault.

We will consider any violent act that is classified as a crime in one of the countries under study to be an interpersonal violent crime, even if it is not considered as such in all of the countries under study. For example, domestic violence and child maltreatment are considered crimes in some countries but not others. For the purposes of this review, we will include domestic violence and child maltreatment under the definition of violent crime.

We will not include outcomes relating to self-directed harm (acts or omissions perpetrated by an individual against himself or herself) or collective violence (acts or omissions perpetrated by a state or large organised group against another state or large organised group). Specifically, we will not include the following outcomes: self-harm, suicide, terrorist activity, rioting, looting, smuggling, gang warfare, genocide, war or political conflict. We will exclude self-directed and collective violence because these forms of violence have different causal mechanisms to interpersonal violence, and therefore the impact of interventions would not be comparable. For example, a community-oriented policing intervention designed to reduce homicide rates in high-crime locations would not be expected to influence collective demonstrations against the local political authority.

We follow the World Health Organization in their definition of collective violence as including:

"... crimes of hate committed by organized groups, terrorist acts and mob violence. ... war and related violent conflicts, state violence and similar acts carried out by larger

groups. ...attacks by larger groups motivated by economic gain – such as attacks carried out with the purpose of disrupting economic activity, denying access to essential services, or creating economic division and fragmentation." (WHO, 2002b, p.6)

We will therefore exclude human trafficking for sex purposes and extensive drug-related violence perpetrated by large organised drug gangs, as these violent acts are committed by larger groups motivated for economic gain, and fall under the umbrella of collective violence. We will, however, include violent crime committed by an individual or small group against another individual or small group, if it falls outside of the framework of collective violence as defined by WHO (2002b). We anticipate that the distinctions between collective violence and interpersonal violence may at times be unclear, because the distinctions between large and small groups are fuzzy. We will assess each individual outcome in line with the typology developed by WHO (2002b).

Only interventions that aim to impact interpersonal violent crime will be included in the review; thus, it would make sense to limit the review to interventions that measure interpersonal violent crime as an outcome. However, the difficulties associated with recording and accessing data on violence in developing countries may restrict primary studies' range of outcome measures, so that they are only able to provide a proxy measure (such as aggression) even when the intervention is explicitly intended to impact interpersonal violent crime. The measures may include levels of specific violent crimes (e.g. homicide, robbery), aggregate violent crime rates, or self-reported victimisation. Homicide data are recognised as the most reliable internationally, as homicides are regularly reported to the police in most countries (UNODC, 2007; UNODC & the Latin America and the Caribbean Region of the World Bank, 2007). Therefore, officially recorded homicides will be coded as a preferred outcome measure, although we do acknowledge that this measure is still subject to definitional and recording practice (for example, the distinction between manslaughter and murder may be treated differently across jurisdictions). Other official statistics will be recorded, although these suffer from reporting biases and can therefore be misleading as outcome statistics. Self-reported victimisation surveys are also good data sources, particularly international ones such as the United Nations Office on Drugs and Crime biannual crime trends surveys, because they use a standard definition across countries (UNODC, 2007). Where possible, we will code an outcome measure that is roughly comparable across countries: either homicide rates, or self-reported victimisation.

3.4. Exclusion criteria

Studies that were published prior to 1975 or report on interventions that took place prior to 1975 are not eligible for review.

We will exclude policing interventions that are not implemented by public police, either as a sole agency or in conjunction with partner agencies.

We will exclude evaluations of interventions implemented in countries categorised as developed by the World Bank.

We will exclude from the meta-analysis evaluations where two treatment programs are compared to one another with no baseline business-as-usual comparison group.

We will exclude outcomes relating to self-directed harm, or collective violence (acts or omissions perpetrated by a state or large organised group against another state or large organised group).

We will exclude interventions that were implemented as part of a response to an ongoing or recent violent conflict that is considered a substantively different intervention context to the majority, or that developed from a specific conflict or election context, or that were aimed at preventing political violence.

3.5. Settings and timeframe

We will include only interventions that were reported from 1975 or later. We will include only interventions implemented in countries defined by the World Bank as developing.

3.6. Search strategy for identification of relevant studies

Table 1. Countries classified as "developing" and their corresponding region (World Bank, 2011)

Regions	Countries
East Asia and Pacific	American Samoa; Cambodia; China; Fiji; Indonesia; Kiribati; Korea, Dem. Rep.; Lao, People's Dem. Rep; Malaysia; Marshall Islands; Micronesia, Fed. Sts; Mongolia; Myanmar (also searched as Burma); Palau; Papua New Guinea; Philippines; Samoa; Solomon Islands; Thailand; Timor-Leste; Tuvalu; Tonga; Vanuatu; Vietnam
Europe and Central Asia	Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Georgia; Kazakhstan; Kosovo; Kyrgyz Republic; Latvia; Lithuania; Macedonia, Former Yugoslav Rep.; Moldova; Montenegro; Romania; Russian Federation; Serbia; Tajikistan; Turkey; Turkmenistan; Ukraine; Uzbekistan
Latin America and the Caribbean	Antigua and Barbuda; Argentina; Belize; Bolivia; Brazil; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Nicaragua; Panama; Paraguay; Peru; St Kitts and Nevis; St Lucia; St Vincent and the Grenadines; Suriname; Uruguay; Venezuela, RB
Middle East and North Africa	Algeria; Djibouti; Egypt, Arab Rep.; Iran, Islamic Rep.; Iraq; Jordan; Lebanon; Libya; Morocco; Syrian Arab Rep.; Tunisia; West Bank and Gaza; Yemen, Rep.
South Asia	Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka

Regions	Countries
Sub-Saharan Africa	Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Congo, Rep.; Cote d'Ivoire (also searched as Ivory Coast); Eritrea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mayotte; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Sudan; Swaziland; Tanzania; Togo; Uganda; Zambia; Zimbabwe

Our search strategy will include published and unpublished literature available between 1 January 1975 and 31 December 2011. Studies must be written in English, Spanish, or Portuguese. Studies written in other languages will be excluded, but listed in a table of excluded studies. The geographic location of studies will be limited to countries classified as “developing” according to World Bank country classifications (<http://data.worldbank.org/about/country-classifications/country-and-lending-groups>). The relevant regions and countries used in our keyword search are shown in Table 1.

The search and document retrieval strategy is intended to capture a range of published and unpublished literature across disciplines and involves 5 steps.

3.6.1. Keyword search of online journal and grey literature databases

Search keywords were piloted and refined to ensure optimum sensitivity and specificity. A list of keywords is provided in Table 2. These keywords were revised according to the results of a pilot search and feedback from the project advisory group. A list of search locations is provided in Table 3. As with the keywords, the list of databases was refined according to the results of a pilot search and feedback from reviewers and the project advisory group.

3.6.2. Hand search of relevant journals not indexed on databases

Preliminary investigations conducted by our research team suggest that some journals dealing with the subject matter of interest to this review are not indexed in major online databases, particularly journals focused on a particular developing country. Therefore, these journals will be hand searched. These journals are included in Table 3.

3.6.3. Search of publications sections of relevant agency websites

A list of relevant agencies was determined in discussion with the project advisory group, and the agency websites will be searched for relevant publications. A list of these agencies is provided in Table 3.

3.6.4. Hand search of reference lists of relevant documents

The research team will check the references of each eligible study included in the review to determine if there are other studies of interest that had not been retrieved in the original search. Any new literature of interest will be obtained and assessed for eligibility.

3.6.5. Contacting prominent scholars and policymakers for feedback on completeness of list

Once we have completed the list of eligible studies it will be sent to the project advisory group to determine whether we missed any important sources.

3.7. Search keywords

The search will be undertaken using a list of keywords, presented in Table 2, grouped under four broad categories: interventions, outcomes, locations, and evaluations. These keywords were refined in consultation with the project advisory group.

Table 2. Keywords for the systematic literature search

Intervention keywords	Outcome keywords	Location keywords	Evaluation filters
Police	Violen* (violence, violent)	"Developing country"	Intervention*
Policing	Robber*	Region-specific keywords ⁴	Evaluat*
"Law enforcement"	Rape	Country-specific keywords ⁵	Compar*
	Assault*	"Third world"	Impact
	Maltreatment	"Low income countr*"	Assess*
	Homicide*	"Imic"	Effect*
	Murder*	"Transitional countr*"	
	Kill*	"Emerging economy*"	
	Mugging*		
	"Sex crime*"		
	"Wife beat*"		
	"Spouse beat*"		
	Batter*		

The combination of keywords in searches will be dependent on the search protocol of each database. Where possible, compound terms (e.g. law enforcement) will be considered as a single term and entered into searches in quotes (i.e. "law enforcement"), ensuring that the database searches for the entire term, rather than separate words. In addition, terms with multiple iterations from a stem word (e.g. violence, violent) will be entered as word* (e.g. violen*). Keywords will be combined using Boolean operators "AND" and "OR". Terms will be combined with "OR" within each group and "AND" between groups, for example: (police OR policing OR "law enforcement") AND (violen* OR robber* OR rape OR assault* OR maltreatment OR

⁴ The regions listed in Table 1.

⁵ The countries listed in Table 1.

homicide). While the larger commercial databases such as Scopus and Web of Knowledge allow the entry of all keywords, the combining of searches using a “search history” function, and the use of specific search fields (e.g. title/abstract/topic), others are more limited. We will use Google Scholar to search some websites (e.g. African Development Bank, AusAID, USAID) using the “site” function.

3.8. Search locations

We will use electronic databases/resources accessible online and through the University of Queensland Library. As we consider it important to locate “grey” literature or material that is not formally published, such as working papers, unpublished dissertations, and government, non-government and technical reports, we will also search relevant websites such as the various Development Bank sites, AusAID and USAID. The databases and websites to be searched are listed in Table 3.

3.9. Non-English search

Our search of languages other than English will be limited to Spanish and Portuguese. Keywords (shown in Table 4) were translated by the Institute of Modern Languages at the University of Queensland (www.iml.uq.edu.au) and will be used to search two Spanish databases: Clase and Periódica, both of which are accessed through the library at the Universidad Nacional Autónoma de México (<http://dgb.unam.mx/index.php/catalogos>).

We will conduct separate searches for each keyword category using the “palabra clave” (keyword) field, and then combine each search using the “refinar búsqueda” (refine search) function. While the keywords we will use are Spanish, preliminary investigation showed that the search produces records in both Spanish and Portuguese. Relevant articles will be translated into English.

Table 3. Online databases and websites used in the 3ie funded systematic search

Type of Source	Search Locations
Journals	Africa-Wide Cambridge University Library & Dependent Libraries Catalogue Criminal Justice Abstracts via EBSCO Directory of Open Access Journals JSTOR ProQuest (Databases selected: British Periodicals; Dissertations & Theses at the University of Queensland; Index Islamicus; PAIS International; ProQuest Dissertations & Theses; ProQuest Research Library; ProQuest Social Science Journals; Social Services Abstracts; Sociological Abstracts; Worldwide Political Science Abstracts) PsychInfo ScienceDirect Scopus Web of Knowledge Wiley Online Library
Reports	African Development Bank website Asian Development Bank website

Type of Source	Search Locations
	AusAID website British Library for Development Studies database ELDIS IDEAS: International economics research database Inter-American Development Bank website International Initiative for Impact Evaluation (3ie) database JOLIS: World Bank Group and International Monetary Fund online database United Nations Development Programme website United Nations Office on Drugs and Crime website USAID website WHO Collaborating Centre for Violence Prevention website (www.preventviolence.info) WHO Global Health Library
Dissertations	ProQuest Digital Dissertations index ProQuest Dissertations & Theses at the University of Queensland
Grey literature	OpenGrey

Table 4. Keyword Spanish translations

Keyword category	English keyword	Spanish translation
Intervention	Police	Policía
	Policing	Mantenimiento del Orden/Vigilancia
Outcome	Violence	Violencia
	Rape	Violación
	Robbery	Robo
	Assault	Agresión/asalto/ataque/Agresión sexual
	Maltreatment	Maltrato
	Homicide	Homicidio
Evaluation filters	Intervention	Intervención
	Evaluation	Evaluación
	Comparison	Comparación
	Impact	Impacto

4. Screening and coding of studies

4.1. Title and abstract screening

Four trained research assistants will use a set of preliminary eligibility criteria to assess, on the basis of titles and abstracts, whether the studies returned from the systematic search are potentially eligible for inclusion in the systematic review. The preliminary criteria are (1) does the article discuss policing AND (2) does the article discuss violence

AND (3) does the article concern a developing country? At this stage a very broad definition of the above criteria will be applied, allowing for only obviously irrelevant sources to be excluded. For example, studies that are returned from the search keyword “rape” but actually concern crop production will be removed. Similarly, studies concerning interventions in the United States that appear because of the search term “Georgia” will also be removed. The decision on each abstract will be double-checked by a second screener. If the document is considered potentially eligible for inclusion, the full text document will be coded in detail by trained research assistants.

4.2. Detailed coding of studies

Trained research assistants will use a standardised coding sheet, along with a detailed coding companion document (available in Section 8) to code the documents in detail. The coding sheet will be implemented as a Microsoft Access database. The coding sheet will contain information on study eligibility criteria, search information, reference information, intervention information, population under study, unit of analysis, quality of research design, outcomes reported, effect size data, authors’ conclusions, and authors’ comments on factors impacting the success or failure of the intervention. Table 5 shows a summary of the fields to be coded. Half of the studies will be double coded by a second reviewer to ensure accuracy and consistency of information capture; however, all of the studies will be double-coded on the items used to calculate effect sizes. Coding discrepancies between reviewers will be resolved by discussion and by enlisting the assistance of a third reviewer should a consensus not be reached.

Table 5: Summary of coding fields

Document ID	Other contextual information
Full reference (APA style)	Implemented as planned Y/N
Coder name	Agency partnerships successful Y/N
Date coded	Issues in implementation Y/N
Unique study Y/N	Ethical issues Y/N
Developing country Y/N	Monitoring of treatment delivery Y/N
After 1975 Y/N	Treatment integrity Y/N
Intervention Y/N	Intent to treat analysis Y/N
Aimed at violent crime Y/N	Differential attrition Y/N
Policing intervention Y/N	Sample bias Y/N
Descriptive review only Y/N	Randomised Y/N
Process evaluation Y/N	Type of comparison group
Process evaluation with raw data Y/N	Problem with research standards Y/N
Impact evaluation Y/N	Age
Country of intervention	Gender
Language	SES
Research timeframe	Other characteristics of sample
Intervention name	Outcome category
Intervention strategy (brief)	Conceptual definition of outcome
Full description of intervention strategy	Operational definition of outcome

Theoretical background to intervention	Data source
Comparison group details	Authors' conclusions
Police led Y/N	Was a standardised effect size reported?
Other components of intervention	Effect size page number
Funded by	Effect size measure
Unit of treatment assignment	Effect size
Unit of analysis	Are data available to calculate an effect size?
Conflict context Y/N	Data to calculate effect size
Political activity context Y/N	

5. Assessment of study quality

We will assess study quality using the IDCG Risk of Bias tool. This tool assesses the risk of bias and internal validity for experimental and quasi-experimental designs across the following eight categories, measured as Yes, No or Unclear:

1. Mechanism of assignment: was the allocation or identification mechanism able to control for selection bias?
2. Group equivalence: was the method of analysis executed adequately to ensure comparability of groups throughout the study and prevent confounding?
3. Hawthorne and John Henry effects: was the process of being observed causing motivation bias?
4. Spill-overs: was the study adequately protected against performance bias?
5. Selective outcome reporting: was the study free from outcome reporting bias?
6. Selective analysis reporting: was the study free from analysis reporting bias?
7. Other: was the study free from other sources of bias?
8. Confidence intervals

We will not allocate a score or index, as extreme failure in one area of study quality can be more serious than minor breaches of quality across multiple arenas. Rather we will make a critical qualitative decision for each study as to whether there is a clear risk of bias such that the study quality is sufficiently low to warrant exclusion from the review. Any evaluations that are excluded on the basis of quality will be listed in the final review. We will present the results of the assessment of study quality in a "traffic light" format (see de Vibe et al., 2012).

6. Methods of synthesis for objective 1: review of effectiveness

To address the first objective of the review and synthesise the evidence for the effectiveness of policing interventions to reduce interpersonal violence in developing countries, we will provide a meta-analytic synthesis of the research evidence. If there are insufficient studies to perform a meta-analysis, we will not provide a review of effectiveness, because the use of studies that do not use an experimental or quasi-experimental design would introduce bias into the synthesis.

6.1. Criteria for determination of independent findings

There are two issues of independence that will need to be addressed in this review. The first is that documents may report on multiple studies, which may in turn report multiple outcomes. Documents will be allowed to contribute multiple effect sizes, but only one

effect size for each outcome. If a study reports multiple effect sizes for the one outcome, the mean effect size for that outcome will be calculated using Comprehensive Meta Analysis 2.0 (Borenstein, Hedges, Higgins, & Rothstein, 2005). The second issue of independence is that multiple documents may report on the same data. In these instances, we will seek to identify which documents are related, and use all sources to contribute to the one calculation of effect size. We will seek methodological advice from the Campbell Collaboration in these instances.

6.2. Data extraction for meta-analysis

For the subset of studies which quantitatively evaluate policing interventions, standardised effect sizes or statistics that can be used to calculate a standardised effect size will be recorded in the standardised coding sheet as free text. A second reviewer will then double check the data extraction for every study that contains effect size data. These data will then be entered into Comprehensive Meta-Analysis 2.0 software (Borenstein et al., 2005) to calculate the appropriate effect size, and the data input will be double checked by a second reviewer for each study where effect size data are recorded.

6.3. Choice of effect size metric

We will use Cohen's d as the common measure of effect size. We will calculate a value for d from each study which includes an effect size, along with a standard error.

6.4. Calculation of effect sizes from studies

It is expected that the policing studies assessed will generally use an interrupted time series design with observations at multiple time points before and after the implementation of an intervention in an area. Some studies use comparison groups in addition to multiple time points. For studies that collected data at multiple time points, we will assume an underlying uniform distribution for violent crime, and a step function for the effect of the intervention on the outcome. We will therefore calculate an average effect size for the time points before the intervention, and an average effect size for the time points after the intervention, and compare the two. We recognise that there are many other ways to deal with this type of time series data; however, given the research questions and the likely nature of the intervention effect, we decided upon this method as the most defensible and parsimonious.

Only studies that assign treatment and collect data at a similar geographic level (e.g. municipality) will be included.

6.5. Method of synthesis

If the search results in the identification of suitable data for meta-analysis, we will use meta-analysis to synthesise the results of the included evaluations. If there are not sufficient suitable studies, we will not provide a synthesis of evidence for effectiveness. Effect sizes will be calculated using Comprehensive Meta-Analysis software. We will use a random-effects model and inverse variance weighting to combine study results, given the likely heterogeneity in the interventions and populations studied. We will examine sources of heterogeneity in the intervention impact, including intervention strategy, location, implementing agency, population under study, and evaluation quality using subgroup analysis (analogue to the ANOVA) for categorical outcomes and meta-regression for continuous predictors. We will present the results of the meta-analysis as

forest plots, and will present forest plots of any subgroup analyses conducted. We will test and adjust for publication bias using a range of approaches suggested in Rothstein, Sutton, and Borenstein (2005); depending on the data collected, this may include funnel plots and trim-and-fill analysis. We will use Comprehensive Meta-Analysis 2.0 software (Borenstein et al., 2005) for calculations and production of figures.

6.6. Moderators of effect size

We will code a range of study-level moderators that we expect would have an impact on the effect size. Specifically, we will code for intervention strategy, population under study (offenders/general population; gender specific), theoretical background to the intervention, contextual variables, geographic region, implementation success, and study design characteristics. We will also code indicators of study quality. We will investigate the possibility of conducting moderator analyses, using analogue to the ANOVA for categorical predictors and meta-regression for continuous predictors.

7. Methods of synthesis for objective 2: review of reasons for success or failure

To address the second objective of the review and assess the reasons for the success or failure of policing interventions, we will provide a narrative review of policing interventions targeting interpersonal violent crime in developing countries. The narrative review will be a thematic synthesis of evidence on the reasons for success or failure of the implementation of policing interventions. In this narrative review we will aim to identify mechanisms, activities, people and resources that mediate between the intervention inputs and outcomes. This summary will be considerably more extensive than the detailed coding of each study, but will include the information coded in the following fields: Implemented as planned, Agency partnerships successful, Issues in implementation, Ethical issues, and Authors' conclusions. The narrative review will specifically focus on practical, policy-focused implications from the evaluations of policing interventions.

Timeframe for review

Submission of protocol	July 2012
Revision and approval of protocol	December 2012
Search for published and unpublished studies	January 2013
Relevance assessments and coding	February 2013
Statistical analysis	April 2013
Preparation of report	May 2013
Submission of completed report	June 2013

8. Sources of support

8.1. Internal funding

In-kind support from The University of Queensland, Queensland University of Technology, and from the ARC Centre of Excellence in Policing and Security (CEPS).

8.2. External funding

From the Global Development Network via 3ie's Open Window Round 3 (SR3/1277)

9. Declarations of interest

None of the authors have any known conflicts of interest.

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11. Data extraction codesheets

The codesheets will be implemented in Microsoft Access. The following guide will be given to every person coding:

Use this document together with the review protocol to help you fill out the coding sheet.

Before coding

1. Open the review database at S:\Policing and Security\Projects_ACTIVE\Reviews\Violent Crime 3ie\Data and analysis\Document coding\2013 Screening and coding\Violence Review db fe.accdb
2. The form is divided into two main areas – the top section relates to the document as a whole and the sub-form relates to each individual study in the document.
3. Note that documents can report on multiple studies and that studies can report on multiple outcomes.
4. The form should either display an icon in the PDF button on the top left, or indicate that the document needs to be ordered. For documents with a PDF icon, double-click on the PDF icon at the top left and select an attachment to open. For documents that were ordered, check if the document has arrived and if so, use the physical copy.
5. The first 6 fields of the form are not editable, but provide information on the document to be coded.
6. Coding begins at “Coder”
7. Start coding the document using the guidelines below.
8. Note: if you cut and paste information from the source document, please paste the text in between “ ” so that we do not accidentally plagiarise a document when summarising.
9. Start coding the document using the guidelines below.

Document ID

These numbers are unique identifiers for each document assigned at the end of the systematic search phase of the review.

Full reference

The document’s full reference in APA format

Coder

Select your name from the drop down list

Date coded

Click in this field for today’s date

Document Eligibility

These questions determine whether the document is eligible for inclusion in the systematic review. The answers to these questions combine to automatically determine eligibility for both narrative review and meta-analysis.

If the document is eligible for narrative review, the button next to “eligible for narrative review” will be highlighted.

If the document is eligible for meta-analytic review, the button next to “eligible for meta-analytic review” will be highlighted.

Unique

This question is a filter to prevent coding of multiple documents that are reporting on the same intervention. Put yes or no. If no, put the Study ID of the document reporting on the same intervention as this one. Please note that it does not count as the same intervention if it is implemented in a different place.

Developing country

Put yes or no. The intervention has to take place in a developing country to be eligible. Developing countries for the purposes of coding include any countries except for the United States, Canada, the United Kingdom, Australia, New Zealand, Japan, and Western Europe (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, the Netherlands, Norway, Spain, Switzerland, and Vatican City). Do not confuse with the country where the study was published.

After 1975

Put yes or no. Documents published before 1975 are not eligible for this review. Documents published after 1975 but reporting on an intervention that took place before 1975 are also not eligible; however, don't feel the need to go looking for this information yet if it's not immediately apparent.

Intervention

Put yes or no. Is this document reporting on an intervention? An intervention is some kind of strategy, funding change, organisational change, campaign, training, or directive that is different from business as usual. If the document is merely describing the way things are, and does not report on any specific action that is different, it is not eligible. If the document is talking about change in general terms, or suggesting an intervention, but is not actually reporting on a specific intervention that has actually taken place, it is not eligible.

Aimed at violent crime

Put yes or no. There are two ways of determining whether the intervention is aimed at preventing/reducing violent crime. First, check whether the outcomes of the intervention include some measure of violent crime (including violent crime broadly, homicide, assault, rape, robbery, domestic violence, or other forms of interpersonal violence). Note that self-directed violence (self harm, suicide) and collective violence (protesting, looting, war, state violence, terrorism) do not count under our definition of violent crime. The violent act does not have to be illegal in the study country to be included in our definition (e.g. if the intervention aims to prevent rape but rape is not illegal in the country, it is still eligible for inclusion). If the document reports a violent crime outcome, the answer to this question is yes. If the document does not report a violent crime outcome, look at the introductory text of the document to see whether the authors say the intervention is aimed at violent crime. If they explicitly say the intervention is

intended to impact some kind of violent crime, put yes. If they don't explicitly say that one of the aims is to impact violent crime, and they don't measure violent crime as an outcome, put no – the study is not eligible for inclusion in this review.

Policing intervention

Put yes or no. Did the intervention involve public police, alone or in partnership with another party?

Descriptive review only

Tick the box for yes. The document must only describe an intervention, but provide no quantitative or qualitative evaluation of the intervention.

Process evaluation

Tick the box for yes. There must be a qualitative evaluation of the intervention; that is, they report on how successful the implementation of the intervention was, but do not actually provide any comparative outcome data.

Process evaluation with raw data

Tick the box for yes. The authors report on how successful the implementation of the intervention was, and provide raw data to support their conclusions, but do not actually provide a statistical analysis of the outcome data with sufficient data to calculate a standardised effect size. Examples of raw data include graphs or tables of outcomes per year, but with no calculations of differences before and after an intervention, or no correlations of outcomes with the intervention. Note: most data which is summarised separately for the control group and the intervention group could be considered an impact evaluation, even if an effect size has not been calculated. For further clarification, see the impact evaluation, below.

Impact evaluation

Tick the box for yes. There must be a quantitative evaluation of the impact of the intervention. This can include impact on local or global supply or consumption, impact on the environment or other factors included in the outcomes section. Do not include documents that say they are evaluations but are actually process evaluations; that is, they report on how successful the implementation of the intervention was, but do not actually provide any comparative outcome data. Impact evaluations report statistics (e.g. p values, r, d, g, t, F, Chi2) or report data summarised for the control and intervention groups, such as frequency tables, before and after means, and contingency tables.

Should you continue to code?

- Depending on the type of document, the form will enable certain fields
- Descriptive review documents require no more coding
- Process evaluation documents require no more coding; however, should there be insufficient impact evaluation documents, process evaluation documents will be coded in a second pass of coding, and qualitatively synthesised.
- Impact evaluation documents can be coded for studies and outcomes

Study info overview

These questions provide information about the document that will help us to determine whether the features of the study impact the outcomes of interventions.

Study name

If the document contains an eligible study, enter a "Study name". This will automatically generate a new record for the study. If the study is not named in the document, invent an appropriate name e.g. "Author year study 1".

Coded by

Select your name from the drop down list

Date coded

Click in this field for today's date

Study info tab

Country of intervention

Write the name of the country in which the intervention was implemented (note: do not confuse with the country in which the study was published; they may be different, e.g. a DFID study implemented in Congo but published in the United Kingdom).

Language

Write the name of the language of publication when we first retrieved it (i.e. some documents will have been sent to the translators – if you are reading the English translation but the original document was in Spanish, put Spanish).

Research timeframe

Write the years in which the study was running. If in doubt, the document should include information on what year the intervention was first implemented; write that in.

Intervention info tab

These questions provide information about the intervention that will help us determine whether the features of the interventions impact their outcomes.

Intervention name

Many intervention strategies have a name, e.g. "Project Peace". Write in the name of the intervention. If you can't find one, write "none".

Intervention strategy

Most interventions fall under a broad definition of some kind of strategy, e.g. community-oriented policing, alternative dispute resolution, prison reform, diversion, training, citizen education, organisational restructuring, intelligence led policing, etc. Try to identify a broad definition for this intervention. If the authors have identified what type of strategy it is, use their terms.

Full description

Write a full description of the intervention strategy (but limit to two or three sentences). Where possible, use the exact words used to describe the intervention in the text.

Theoretical background

If the authors have identified a particular theoretical background to the intervention (e.g. zero tolerance, restorative justice, procedural justice, empowerment, etc.) write it here. If they haven't, write "no information".

Comparison group

Describe what happened to the group / area that did not receive the intervention (the "business as usual" condition). If there is no information in the document about what usually happens in the absence of the intervention, write "no information". Note: if the comparison group is not "business as usual", but is an alternative intervention, the document is not eligible for review. Write "alternative intervention", and stop coding.

Police led

Write yes or no. This question asks whether the police actors were leading the intervention. If the funding is provided by, or primarily to, public police; or if the actions are primarily police orientated; or if you have some other reason to think the police actors were leading the intervention (e.g. the authors said so); put yes. If the policing component was a small part of the intervention (e.g. it was a health intervention that included some training of police officers) or there were no clear leaders (e.g. a multi sector intervention where no sector was clearly leading the intervention), put no.

Other components

Write what other actors were involved in the intervention. Use broad terms, e.g. health system, education system, government, NGO, volunteers, etc.

Funded by

Write what agency is funding the intervention. Use broad terms, e.g. federal government, local government, NGO, foreign government aid program (Foreign government here refers to the government of a country other than the country in which the intervention was actually implemented. For example, the United Kingdom's Department for International Development funding police training in Nigeria would count as a foreign government aid program).

Evaluated by

Write what agency was responsible for evaluating the program. Use broad terms, e.g. local university, foreign university, local government, foreign government aid program, NGO.

Unit of treatment assignment

Write individual, geographic area, group, or other. This question is asking at what level the treatment was assigned; e.g. if some individuals received the intervention but others didn't, write individual; if some areas received the intervention but others didn't, write

geographic area. Write the specific geographic area, e.g. town, city, beat, neighbourhood, etc.

Unit of analysis

Write individual, geographic area, group, or other. This question is asking at what level the data were collected; were data collected from individuals, or do we have e.g. crime rates in an area?

Intervention context tab

These questions help us to determine whether the context in which the intervention is implemented has an effect on its success.

Conflict

Put yes or no. Do the authors explicitly mention that the intervention takes place in the context of current conflict? If conflict is mentioned as part of the country's recent history, but not talked about in the immediate context of the intervention, put no. If the authors do not explicitly mention anything about conflict, put no. If the authors explicitly mention that the intervention is taking place in the midst of a war, genocide, rebellion, etc., put yes.

Political activity

Put yes or no. Do the authors explicitly mention that the intervention takes place in the context of political change, e.g. transition to democracy, elections, governmental change, etc.? Again, it must be explicitly stated by the authors, and in the immediate context of the intervention (not a historical context).

Other contextual information

Write in anything the authors have mentioned about the intervention context that may affect the way the intervention was implemented, or may make it difficult to compare the outcomes of this intervention to interventions in other contexts (e.g. during reconstruction after a natural disaster). If the authors haven't mentioned anything, put "none".

Implementation success tab

These questions are intended to capture information about whether the intervention was implemented as intended.

Implemented as planned

Put yes or no. Did the authors mention any problems with the implementation of the intervention, e.g. funding didn't reach the right people, activities were not carried out, changes in project staff caused delays, etc.; if so, put yes.

Agency partnerships

Put yes if the authors say that the agencies who were supposed to contribute did contribute everything they had agreed to ; put no if the authors mention any problems

with the partnerships; put unclear if nothing is mentioned ; put not applicable if the intervention was implemented by only one agency.

Issues in implementation

Write in what, if any, problems the authors identified in implementing the intervention. If none, put "none".

Ethical issues

Write yes or no. This question is asking whether there are any ethical issues with the intervention itself. You may have to apply some judgment here. For example, if the intervention aims to control crime by severely restricting individual freedoms, if it seems to impinge on human rights, etc., then there may be ethical issues in implementing the intervention in other places. An example would be an intervention that locks up everyone under 15 to stop juvenile crime. Slight incursions on individual freedoms do not count as ethical issues because most interventions include some degree of restriction of freedoms. For example, a juvenile curfew doesn't count as ethically problematic under this definition. Yes means there are problems with the ethics of this intervention.

Quality tab

These questions are asking about the quality of the evaluation studies.

Monitoring of treatment delivery

Put yes or no. Does the paper identify any strategies for monitoring how the intervention was delivered (making sure that all participants who were supposed to receive the intervention received the intervention)? If the paper includes some figures on how the intervention money was spent, or on the activities undertaken by people working in the program, this counts as monitoring of treatment delivery and you should put yes.

Treatment integrity

Put yes or no. Did the evaluators check that the people who were not supposed to be receiving the intervention did not receive the intervention? If there was potential for treatment contamination (e.g. the intervention was delivered in a geographic area but people from the control areas could have travelled into the area to access it) and the authors don't mention any strategies for trying to control this potential, put no.

Intent to treat analysis

Put yes or no. In the analysis, were the groups separated by how they were assigned (intent to treat – put yes) or whether or not they actually received the treatment (put no)?

Differential attrition

Put yes or no. Attrition is the loss of participants from a study. Differential attrition is where one group (treatment or control) loses substantially more participants than the other group; so much so that there is a possibility the attrition could be affecting the results. If there is substantial difference in attrition, or if the authors mention that participants dropped out for particular reasons in one group but not the other, put yes.

Sample bias

Put yes or no. Was the sample selected randomly? If so, put no. Was the sample selected on the basis of the dependent variable (e.g. high crime areas selected for a crime reduction intervention)? If so, put yes. If the sample was selected by convenience (e.g. because the area had the resources to fund the intervention), put "unclear".

Randomised

Put yes or no. Were participants (or areas) allocated to treatment and control at random?

Type of comparison group

Describe the comparison group, e.g. nonparticipants in the program, randomly selected controls, and matched controls, pre-test.

Research standards

Put yes or write in the problem. This is a catch-all question for any serious failings in intervention or evaluation design that are not captured by the other quality questions. If there are no obvious serious issues with the study, put yes. If the study is clearly affected by some kind of bias not captured in the other questions, write what the bias is. Examples are: pre post test without a comparison group (stop coding if this is the case), statistical tests that don't match the data collected, outcomes that are measured but not reported, participants are systematically different in treatment and control groups, other events systematically co-occurring with the treatment that could have affected the outcome, outcomes are measured differently in treatment and control groups, etc.

Sample tab

These questions cover characteristics of the sample under study that may differ between studies.

Age

Put the general age range of the people under study (that is, wherever the data were collected from): adult, elderly, children, or all. If the intervention is delivered at an aggregate level (e.g. towns) and data collected at this aggregate level, just put all.

Gender

Put males, females, or all.

SES

SES stands for socio-economic status. The intervention may have been targeted at "low SES" or "low income" participants. Put low, high, or all.

Other

Put any other distinctive characteristics of the sample, e.g. offenders, victims, police officers, etc. Don't worry about general sample descriptors, only put in things that obviously make this sample different from the general population. If none, put "none".

Outcomes tab

This section is about the particular outcomes reported in the study. Only report outcomes that are evaluated, i.e. for which there is data for both treatment and comparison groups – don't include process-related outcomes for which there is no comparative data. Fill out this section for every outcome, including non violent crime outcomes.

Outcome

Put the general outcome category, e.g. violent crime, aggregate crime, disorder, satisfaction, etc.

Conceptual definition

Write in the definition used by the authors. If the authors don't provide a definition, write in whatever they've called the outcome.

Operational definition

Write in exactly how the outcome was measured; is it a count, sum, average, etc.; if it's officially recorded information e.g. crime, what was the source, and in what timeframe; if it's a survey measure, write in the exact wording of the items; and any other information on the measurement.

Data source

Write official data, self-report, observations, etc.: where did the data come from?

Authors' conclusions

Write in what the authors concluded about the impact of the intervention on this outcome. Use their exact words where possible. Fill out this section for every outcome, including non-violent crime outcomes.

Was a standardised effect size reported?

Select yes or no. A standardised effect size is a value which is comparable across studies and not a function of the sample size (unlike, for example, a t , Chi^2 or F statistic). Standardised effect sizes include: standardised mean difference (g or d), odds ratio (OR), risk ratio (RR), correlation coefficient (r).

Effect size page number

Enter the page number on which the effect size is found. Please note: use the page number of the original document, not the page number of the pdf.

Effect size measure

Write in the type of effect size calculated e.g. standardised mean difference (g or d), odds ratio (OR), risk ratio (RR), correlation coefficient (r).

Effect size

Write in the value of the standardised effect size reported

Are data available to calculate an effect size?

Yes or no. An effect size can be calculated from mean and standard deviations, *t* or *F* value, Chi², frequencies or proportions, pre and post etc. If no, we will need to contact the author/s to request missing information.

Data to calculate effect size

Write in all of the statistics reported for this outcome. If the effect size estimates for this outcome are particularly complex (e.g. a regression table), place a note in this field to direct us to the correct page of the document (e.g. "See regression table 2 on page 37"). Please note: use the page number of the original document, not the page number of the pdf. This data will be entered into Comprehensive Meta Analysis to calculate a standardised effect size.

Outcome coded by

Select your name from the drop down list

Date outcome coded

Click in this field for today's date

Another outcome?

If the study contains another outcome, click the "Add another outcome" button at the bottom of the tab.

If there are no further outcomes to code, are there any more studies in the document? If yes, click the "Add another study" button at the bottom of the form. If no, click the right arrow button at the top of the form to bring up the next document.