



CITY-LEVEL VIOLENCE PREVENTION – AN OVERVIEW OF LOCAL AND INTERNATIONAL LITERATURE

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ABSTRACT

A growing body of evidence has recognised cities as optimum sites in which to conduct injury prevention research. However, there appears to be an absence of a systematic review of city-level studies in the literature. International experience has shown that injury prevention programmes coordinated at city level can have a significant impact in reducing injuries, and this has important implications for local economic growth and business investment. This overview includes available South African and international city-level studies emphasising those city-level initiatives that focused on the prevention and control of violence. It also highlights the challenges and opportunities that have emerged from the implementation of injury prevention programmes at city level. A key finding is that documented city-level injury prevention initiatives are scarce, and that evaluation, a critical component of any injury prevention programme, is missing from those articles that do exist. Without an evaluation of the implemented initiative there is no accurate way to accurately the initiative's success in reducing injury-related morbidity and mortality, or its ability to enhance the adoption of safety practices. This indicates a clear need for more investment in evaluating injury prevention strategies at city level. Intervention methods piloted at city level were not reflected in the literature, illustrating a lack of collaboration between science and society, policing and research, and the prevention sector in general. By drawing on the lessons provided by international city-level injury prevention initiatives, the article concludes by suggesting the possible replication of cost-effective preventive measures, and evaluates some of the strategies for the conceptualisation and implementation of city-level injury prevention initiatives in South Africa.

Key words: *homicide, inner city, city-level injury prevention*

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INTRODUCTION

Violence and injury have become important and necessary foci for the public health domain. Instead of accepting that violence is an unpleasant but unavoidable part of human existence, research has shown that violence and injuries are preventable (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). The World Health Assembly declared violence a leading worldwide public health priority in 1996 and the first World Health Organization (WHO) report on violence and health was produced in 2002 (Krug et al., 2002). The WHO report indicated that the prevention of large numbers of violent and unintentional injuries and deaths requires systematic data collection to describe the extent, range, type, and consequences of violence (Yacoub, Arellano, & Padgett-Moncada, 2006). The following definitions were used to delineate the two key foci of this overview, namely violence and the city. We use the public health definition of violence where violence is,

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. (Krug, et al., 2002, p. 5)

We then employed the South African *Municipal Structures Act* definition of a city or metropolitan area to determine what constitutes a city, which is described as a,

conurbation featuring areas of high population density, an intense movement of people, goods and services, extensive development, and multiple business districts and industrial areas, a centre of economic activity with a complex and diverse economy, a single area for which integrated development planning is desirable, and having strong interdependent social and economic linkages between its constituent units. (*Municipal Structures Act 177 of 1998*, pp. 1–6)

This article in part sets out to collate information from a number of South African and international city-level studies and to provide an outline of the challenges and opportunities faced in designing, implementing, and evaluating injury prevention initiatives. It focuses in particular on interventions that centre on violent deaths (homicide) for several reasons. First, the National Injury Mortality Surveillance System (NIMSS) national fatal injury profile for 2004 indicated that accidental or unintentional injuries, including transport-related deaths, were the most common apparent manner of non-natural death in South Africa. Violence or homicide deaths accounted for 39.3% of fatal injuries, marking this as a critical priority area for intervention and prevention.

Second, cities in themselves are good sites for injury prevention initiatives as they cover a defined geographical area; the relevant social actors are more available and accessible than at provincial or national level; documentation is more accessible; and the decision making processes are clear (Matzopoulos, 2005). A city-level injury prevention initiative is one that is driven at the mayoral level and is not limited to the local council level, but refers to the larger tiered city management structure. In order for a programme to be considered city level, it should encompass the broader borders of the city although it is acknowledged that specific sites within the city are usually targeted for pragmatic reasons. This article examines those initiatives implemented by city-level administrations rather than more localised non-government organisation (NGO) led programmes.

The article begins by detailing the methodology employed for this overview and then provides a generalised outline of South African city structures to indicate where responsibility for injury

prevention lies, using Johannesburg as an example. This leads to consideration of the difficulties in accessing injury prevention literature in South Africa before moving on to an overview of the selected articles. Local and international studies are presented together under thematic categories defined by the article's particular approach to violence prevention. It then outlines the additional challenges to the implementation of effective preventive measures in low- and middle-income contexts, and presents a brief recommendations section.

METHODOLOGY

The relevant literature was accessed through the following databases: *PsycINFO*, *CSA Sociological Abstracts*, *Psychology: A Sage Full-Text Collection*, *CSA Social Services Abstracts*, *PsycARTICLES*, *Africa-Wide: NiPAD (Incorporating South African Studies and African Studies)*, *Cochrane Systematic Review Database*, *Social Science Citation Index (SSCI)*, *Sociological Abstracts*, *Sabinet*, *Ebscohost*, and *Nisc*. The search terms “city or cities”, “urban”, “violence” or “injury”, “homicide”, “intimate partner violence”, “domestic violence”, and “prevention” were used in a variety of combinations. Initially 148 articles, abstracts, and book chapters were identified based on the presence of the key word search terms specified above. Criteria for the inclusion of studies stipulated that they had to focus on the prevention of violence and be city wide, preferably municipally driven or sanctioned. Most research items found were studies conducted in North America, and very few met the inclusion criteria; therefore, it was decided to consider articles that dealt with violence prevention targeting communities or suburbs within metropolitan boundaries. Finally, only six South African-based research articles and 16 international articles were included.

Data were extracted from each of the articles under the headings: author, date and country; aims and content of the intervention; injury target group and setting; method and/or outcome measures; and lessons learnt/key results. Quality assessment and data abstraction were guided by a standardised procedure and performed independently by two authors. Quality criteria for assessment of research were drawn from *The British National Health Service Centre for Reviews and Dissemination Review Guidelines* (2001). Data synthesis was done in tabular and text form. We have summarised the key features of the studies in tables 16, and provided further comparative discussion under each of the category headings later in the article.

CITIES AND INJURY PREVENTION IN THE SOUTH AFRICAN CONTEXT

Cities are prime sites for intervention programmes as urban governments are advantageously placed to marshal the relevant role-players required to affect a crime or injury prevention programme. In South Africa, Johannesburg's city administration is headed by a city manager who also sits on the mayoral committee, thus facilitating a close working relationship between policy makers and policy implementers. The city's management team implements council decisions and monitors the performance of the various city structures made up of ten utilities (e.g. city power), a number of agencies (e.g. Johannesburg roads), and enterprises (e.g. the zoo). The fire department, ambulances, metropolitan police, and traffic control are all managed by separate departments within the central administration (How it works – Unicity structure, 2007).

The administration seems structured to facilitate coordinated holistic city-level interventions to deal with threats to citizen safety. However, the injury prevention focus in South African cities is concentrated on crime and its associated injuries. The prevention of injuries is embedded within crime prevention strategies and falls under the auspices of the metropolitan police in the major cities. Injury prevention does, however, form part of city mandates to create safe and healthy environments for their citizens.

SOUTH AFRICAN LITERATURE

While there is limited literature documenting violence and injury prevention programmes at city level in the South African context, injury prevention is in fact an important part of metropolitan planning. This is evidenced in the comprehensive Crime Prevention Strategies (CPS) of the metropolitan police and the Integrated Development Plans (IDP) presented by the major metropolises such as Johannesburg, Cape Town, Durban, and Pretoria/Tshwane. Metropolitan governmental documents such as IDPs and CPSs represent an invaluable source of grey literature² which, although becoming more accessible, is still difficult to acquire. Plans for crime prevention strategies are easily accessed via the Internet, but details of actual prevention programmes and the outcomes of such interventions are far more difficult to find.

The difficulty in accessing local government information may in part contribute to the lack of documentation on evaluations of city-level violence and injury prevention initiatives. Literature reviewed for the South African component of this article is therefore limited to descriptive and epidemiological studies which map the incidence, determinants, and risk factors surrounding traumatic injury through violence. Importantly, each of the articles makes recommendations for the promotion of safety in the South African context based on the findings of their research.

The following section discusses the reviewed articles in six categories defined by the approach to violence prevention employed by the authors. Articles espousing inter-sectoral collaborative approaches to violence prevention were by far the most common and we reviewed six articles in this category (see Table 1).

Table 1. Inter-sectoral collaborative approaches to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Brash, 2004, Baltimore, Maryland, US	Multiple interventions wraparound initiatives to coordinate city agencies, NGOs and community groups.	Youth ±13 17 years living in high risk of violence neighbourhoods in Baltimore, 2002, ongoing.	Three categories of intervention: the individual and their family; the neighbourhood and community; and police and gun policies.	School attendance increased by 6% and curfew observation increased from 38% to 61%. Undertaking collection of crime statistics for long-term monitoring.

2. *Grey literature* refers to information produced by government agencies, professional organisations, public institutions, special interest groups, associations, and societies which may or may not be published and are generally not subject to peer review. These data usually form part of internal resource documents and therefore may often be difficult to obtain (Weintraub, 2000).

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Griffin & Poles Sands, 2006, Atlanta, US	Metropolitan Atlanta Violence Prevention Partnership (MAVPP) a violence prevention team for the city to promote the health, safety and well being of all citizens.	General population, victims of violence, women, youth, underserved groups, October 2005, ongoing.	Partnership with metropolitan municipality, police, schools, NGOs, academic institutions. Create city-wide action plan; coordinate all city violence prevention projects.	A set of working norms and values provides a framework for building MAVPP and facilitates sharing of resources, expertise and opportunities around a common issue, violence prevention in an egalitarian way.
Merkes, 2004, Darebin, Australia	Partnership approach to family violence initiated, resourced, and facilitated by Darebin City Council. Improve services to the community, create links between stakeholders.	All families in the city.	Working group set out strategies to address family violence; develop an integrated service system with police, family support agencies and courts.	Successful working group partnerships require frequent open communication, formal and informal relationships, inclusiveness and multiple layers of participation.
Guerrero, 2006, Bogotá & Cali, Colombia	Reduce crime and violence through multi-sectoral collaboration. The multi-factoral causal mechanism interventions in the police, legal, education, and cultural systems.	Entire population of the city.	Cali "development, security, peace" reduced homicide from 126 to 100 per 100 000. Bogotá "security and congruous living" homicide and crime reduced over 10 years from 82 to 28 per 10 000.	Consistent application of measures over time political will is key. Empowerment of the community through accurate information systems is important in assuring sustainability of policies.
Pence & McDonnell, 1999, Duluth, Minnesota, US	Domestic Abuse Intervention Project (DAIP) reduce cases of family violence; increase the safety of vulnerable citizens.	Vulnerable individuals, such as women and children, victims of domestic abuse.	Streamlines and coordinates policy, processes, training, and all documents used in violence prevention between police, courts, shelters, health agencies, etc	Continuous evaluation of project activities by defined outcome measures improves project efficacy. Decisions should always be made from the standpoint of victim safety.
Shapiro & Pettersson, 2006, Kungsbacka, Sweden	Karla collaboration, aims to reduce cases of abuse against women and increase their safety. Network of police, social services, probation, health care, and crime prevention division, victim support groups and women's shelters.	Women of all ages in the municipality of Kungsbacka.	The model aims to synchronise the responses of the agencies and practitioners. Practitioners report improvement in service to victims through networking, service system is still fragmented.	More focus needs to be put on preventive actions and in engaging media, schools and youth clinics in order to access children and adolescents for education and intervention.

INTER-SECTORAL COLLABORATIVE APPROACHES TO VIOLENCE PREVENTION

Prevention of violent injuries, specifically homicides, in cities seems to be a priority and collaborative approaches dominate recent literature. All the articles reviewed suggested that collaboration between

all sectors of the community, from formal municipal structures to citizen groups, is necessary in order to improve the chances of the intervention/prevention being a success.

Three articles addressed the issue of intimate partner violence (IPV) or family violence in a metropolitan setting, i.e. the Domestic Abuse Intervention Project (DAIP) in Duluth Minnesota, United States of America (US), the Karla Programme in Kungsbacka, Sweden, and the Darebin Family Violence Working Group, Darebin, Victoria, Australia. The programmes aimed to reduce the number of cases of IPV/family violence and increase the safety of vulnerable individuals in each city.

The most important reflections to emerge from these projects were that coordinated networks improve the probability of producing the desired results (Merkes, 2004; Pence & McDonnell, 1999; Shapiro & Odberg Pettersson, 2006). However, the efficacy of the project from the perspective of the user, i.e. the victim, needs to be explored and a preventative focus needs to be incorporated into the project. The most meaningful outcomes of the evaluations conducted within these projects found that there is insufficient coordination of the system for dealing with domestic abuse. Transformation of the system to build in protection of the victim is necessary at all levels and coordination becomes merely a means to achieving more complex objectives (Merkes, 2004; Pence & McDonnell, 1999).

An alarming rise in the rates of homicide in the city of Cali, Colombia, between 1983 and 1994 prompted the mayor to institute a comprehensive public health-based programme to reduce crime and violence. The programme addressed the multiple causes of crime and violence and involved intervention in the police, legal, educational, and cultural systems (Guerrero, 2006). Strong, multi-sectoral partnerships were developed to facilitate the programme.

Colombia's capital city, Bogotá, adopted a similar programme to deal with crime and violence. The policies were maintained for a ten-year period and achieved a decline in homicide from 82 to 28 per 100 000 in the period 1994–2004 (Guerrero, 2006). The success of the programme lay in two key areas, i.e. the generation of reliable information to develop sustainable policies, and the establishment and consolidation of inter-agency partnerships.

The city of Atlanta in the US, adopted a partnership approach to coordinating initiatives to address the issue of homicide deaths in the city in 2005. The goal of the Metropolitan Atlanta Violence Prevention Partnership (MAVPP) is to build a broad-based functional partnership with, among others, the police, the schools, the district attorney's office, and various NGOs to prevent and reduce violence in the city (Griffin & Poles Sands, 2006).

The final article in this group focused on the issue of youth violence in the city of Baltimore in the US. Operation Safe Kids, the city's flagship programme launched in 2002, is an inter-agency collaboration run by the Baltimore City Health Department (Brash, 2004). Three categories of intervention are in use in the city and they focus on: the individual and their family; the neighbourhood and community; and police and gun policies (Brash, 2004). In common with the programmes in Colombian cities there is a strong overlap between collaboration and law enforcement approaches to violence prevention. Brash (2004) has suggested that multiple interventions may be more effective in preventing violence than a single strategy. However, unlike Bogotá, lack of inter-agency communication and coordination has confounded violence prevention efforts in Baltimore despite improved policing and law

enforcement. Regulatory or law enforcement approaches to violence prevention are presented in the next section (see Table 2).

Table 2. Regulatory/law enforcement approaches to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Kelling & Bratton, 1998, Billante, 2003 New York, US	“Broken windows” policing the little things, reduce crime by dealing with disorderly behaviour early to prevent the cycle from accelerating and perpetuating itself. Reduce homicide and firearm violence.	General population of the City of New York. 1994 1996	Deterrence through increased police presence: zero tolerance, patrols of crime hotspots, using technology and intelligence to id hotspots. Targeted arrests keeping repeat offenders off the streets. 60% drop in crime in 1990s.	An effective use of police resources for crime prevention is through high visibility at hotspots in USA and UK cities.
Johnson, 1999, Southern city in Alabama, US	SRO Programme assigns a police officer to schools to assist school officials to cope with violence and make the school environment safe through policing, role modelling, problem solving, counselling, and support.	Youth in nine city high schools and 18 city middle schools. Evaluation took place over one year, the programme is ongoing.	Data revealed that placing police officers in city schools has a positive effect on school violence and disciplinary infractions. Major offences in high and middle schools decreased by 17% from 1994 95 to 1995 96.	The high visibility and availability of SROs for dialogue with students helps to create and maintain positive rapport with students.

REGULATORY/LAW ENFORCEMENT APPROACHES TO VIOLENCE PREVENTION

Kelling and Bratton (1998), and Billante (2003) discussed the success of the “broken windows” policing in New York, US. The strategies focused on actively reasserting police presence in the city to prevent crime. Active policing used statistics, detailed intelligence, technology, and community consultation to plan its strategies (Billane, 2003). Although the policy acknowledged the existence of social, political, and other causal factors which contribute to crime and violence, policing and prevention were vital aspects in decreasing crime. Kelling and Bratton (1998) explained that its success also rested on the interaction of assertive policing and community forces and would not have been achieved without both. A version of the New York “broken windows” policing model has been employed with success in Middlesbrough and Hartpool in the United Kingdom providing an example of localisation of successful policies (Billante, 2003).

A further example of visible policing as a deterrent to violence is presented by Johnson (1999) who evaluated a School Resource Officer (SRO) Programme in an American city in the south. Police officers were placed in city high schools as a proactive measure designed to prevent fighting, theft, and the use of drugs and alcohol, and to deter the possession and use of weapons (Johnson, 1999). Data revealed that SROs reduced incidences of violence as well as drug and gang related activities in the schools. The long-term impact of this programme as a preventative measure has not been gauged and violent incident data would need to be collected and analysed within and across schools

over time (Johnson, 1999). The school environment is an effective and practical place to implement violence prevention and intervention programmes and all three of the educationally based approaches to reducing violence in the following section are implemented in the school environment.

EDUCATION-BASED APPROACHES TO VIOLENCE PREVENTION

Three education-based interventions targeting inner city youth in America were reviewed (see Table 3): the *Student's for Peace* project implemented in eight urban Texas schools (Orpinas, Kelder, Frankowski, Murray, Zhang, & McAlister, 2000); *The Violence Prevention Curriculum for Adolescents and Conflict Resolution: A Curriculum for Youth Providers* implemented in two middle schools in Augusta (DuRant, Treiber, Getts, McCloud, Linder, & Woods, 1996); and the third intervention which evaluated the efficacy of the *Second Step Programme* in an inner city public housing community in Chicago (McMahon & Washburn, 2003). The school-wide multi-component interventions included information and training about violence, empathy, conflict resolution, and anger management. All three programmes are built on Bandura's Social Cognitive Theory.

DuRant et al. (1996) used a pre-test post-test model to test the programmes' efficacy. Adolescents exposed to either of the programmes reported less use of violence in hypothetical situations. However, the conflict resolution curriculum appeared to have a positive effect by lowering incidents of physical fights that caused injury requiring medical attention (DuRant et al., 1996). Overall the results of Durant et al.'s (1996) study supported the use of a social cognitive theory and education-based violence prevention programmes. However, further objective measures of violent behaviours engaged in by the students, together with long-term post testing to determine if behaviour changes had been maintained, would have strengthened the study.

Evaluation and monitoring of the Texas project over a three-year period found that the intervention did not reduce violent behaviours in a group of mainly poor urban students (Orpinas et al., 2000). The major reason for the failure of the intervention is that it does not take the family and community risk factors into account, and it would be more effective if it encompassed the school, family, and community.

McMahon and Washburn's (2003) findings replicated those of Orpinas et al. (2000) offering mixed results for the benefit of these particular education-based programmes. Augmenting the programmes with culturally and community specific components may enhance the programme outcomes. Although frequently recommended, a holistic approach to violence prevention in schools is difficult to implement and in the case of the Texas programme in particular proved ineffective. Lack of community involvement or consideration was cited by the authors of each of these articles as an overlooked potentially important component in the education-based programmes. Thus, community-based approaches to violence prevention will be considered next.

Table 3 Education-based approaches to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Orpinas, Kelder, Frankowski, Murray, Zhang, & McAlister, 2000, Urban district in Texas, US	“Students for Peace” project is a multi-component, school based intervention to prevent and reduce aggressive behaviours among middle school students. Based on Social Cognitive Theory (Bandura).	Youth in eight middle schools grade 6, 7 and 8 in an urban district of Texas were evaluated over three years.	Four components were implemented: health promotion council; Second Step violence prevention curriculum; Peer mediation and peer helper training; parent education. Measures of aggressive behaviour were students’ self reports on three surveys (aggression scale).	Interventions that target social and environmental strategies and involve parents and the community prior to middle school may be more effective.
DuRant, Treiber, Getts, McCloud, Linder, & Woods, 1996, Augusta, Georgia, US	Comparison of two violence prevention curricula attempting to prevent and reduce violence and foster peaceful conflict resolution in schools; social cognitive theory based.	Middle school adolescents in two city schools, 10 weeks.	1. <i>The Violence Prevention Curriculum for Adolescents</i> and 2. <i>Conflict Resolution: A Curriculum for Youth Providers</i> . Pre- and post-test less use of violence in hypothetical situations. Programme 2 reduced number of physical fights at school.	Long-term maintenance of behaviour change may require ongoing sessions. Skills developed through school education-based prevention programmes may be effectively transferred to other areas of life/relationships.
McMahon, & Washburn, Chicago, US	“Second Step” is a violence prevention programme, to reduce violent behaviour, increase pro-social behaviour, five units co-teaching model by counsellor and teacher.	Inner city African American youth 11-14 years living in public housing.	Pre-test post-test of aggressive and pro-social behaviour were assessed through self-, peer- and teacher-report. Increases in knowledge, skills, and pro-social behaviour were reported.	Contextual and community factors need to be considered and incorporated in the programme to increase its efficacy.

COMMUNITY-BASED APPROACHES TO VIOLENCE PREVENTION

Five articles took a community-based approach to violence prevention (see Table 4). Butchart, Nell, and Seedat (1996) discussed the establishment of the Centre for Peace Action (CPA) in Eldorado Park, a low-middle income residential area 20 km south west of Johannesburg. The success of the CPA initiatives was predicated on citizens’ participation and in part on fostering a sense of control rather than helplessness within the community around the prevention of violence. In the course of designing and implementing the CPA, Butchart et al. (1996) marked out the importance of redefining violence more broadly in order to facilitate the idea of prevention as a public health issue that addresses the underlying causal factors instead of relying on deterrence through policing and prosecution of offenders. The CPA model presents a detailed, sustained local example of a multi-tiered community-based violence prevention initiative.

An international example of a multi-tiered community-based violence prevention initiative is found in PeaceBuilders. This programme was implemented in Burbank, California in 2000 through schools,

municipality or city programmes and local businesses simultaneously (Krupnick & Vosskuhler, 2003). The programme is based on the use of a common language and six core principles that are easily generalised throughout the community. Krupnick and Vosskuhler (2003) reported that the programmes have shown positive progress elsewhere, but in the case of Burbank, ineffective cross-sectoral interaction failed to produce the expected outcomes.

When implemented in a grassroots level approach the programme has decreased aggression and delinquency across entire school populations and increased prosocial behaviour by 15–20%. Burbank employed a top-down implementation approach resulting in weak buy-in which the researchers credited with the paltry results. Although the cross-sectoral approach to implementing prevention programmes has proved to be successful, consideration of all stakeholders' positions is important to facilitate success.

Becker, Hall, Ursic, Jain, and Calhoun (2004) acknowledged the need for multi-disciplinary violence prevention programmes, but suggested that there is a place for targeted specific intervention programmes. The *Caught in the Crossfire* programme implemented in Oakland, California, is a peer-based violence prevention intervention programme for youth who have been hospitalised for violent injuries (Becker et al., 2004). The goals of the programme are to reduce the number of youth injured or killed by interpersonal violence; reduce entry and re-entry to the criminal justice system prevent retaliatory violence and promote alternatives to violence through positive peer role models.

The programme is based on providing intervention through community members as opposed to the top-down approach implemented by the Burbank programme. Evaluation of the programme found that youth exposed to the peer role model counselling were 70% less likely to be arrested in the six months post injury when compared to a matched control group. The likelihood of arrest, probation, and probation violation were also reduced (Becker et al., 2004). The results provide support for the effectiveness of “popular” or community-based initiatives.

Popular constructions of causes and solutions of violence are important determinants of responses to injury prevention. Noting that these ideas can increase the success of an intervention, two articles considered this perspective. Butchart, Kruger, and Lekoba (2000) explored citizens' perceptions of injury causes and their ideas concerning solutions for, among others, injuries due to violence. The respondents in the study were drawn from six neighbourhoods in a low-income Johannesburg township. The major recommendation stemming from this study was that effective injury prevention in low-income communities would have greater success if the prevention focused on both the immediate causes of injury as well as the broader socio-ecological conditions of the community.

Busey, Kinyoun-Webb, Martin-McKay, and Mao (2006) investigated a group of American inner-city parents' perceptions about early behavioural and violence prevention counselling. Results indicated that parents felt risk of violence and their children's behaviour was important to them. Parents also felt that behaviour problems could be prevented and changed by protecting children from violence in their future (Busey et al., 2006). In this regard parenting skills were viewed as important and parents were open to learning how to improve these skills. This study highlighted the importance of people's perception that violent behaviour can be prevented or changed as vital to their openness to participate in an intervention programme.

A community or an individual's locus of control orientation has important implications for the success

or failure of injury prevention initiatives. Dixey (1999) addressed the idea of citizens' uptake of safety initiatives in a Yoruba town in Nigeria using qualitative interviews to access their perceptions of unintentional injury causation. Participants viewed unintentional injuries as inevitable, related to the concept of predestination. These Yoruba beliefs spill over into Nigerian culture as a whole and themes of the supernatural dominate popular discourse of all types in that country (Dixey, 1999). This makes the predominantly secular nature of safety promotion discourse and initiatives ineffective in this context.

The Yoruba are not unique in their belief that one's destiny or fate is not located in oneself. Developing suitable successful interventions requires understanding of the local people's attributions of causation and their ideas of the acceptability and efficacy of particular safety initiatives (Butchart et al., 2000).

The participants' causal perceptions provided vital information for the development of effective injury prevention interventions. Qualitative investigation may highlight causal factors different to those indicated by professionals. It also provides insight into the interplay of the causal factors and the power relations that function to structure violence within particular communities. Understanding citizens' perceptions of causation and addressing these within the development of prevention programmes may facilitate greater success by eliciting their support and uptake of the prevention initiatives.

Table 4. Community-based approaches to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Butchart, Nell, & Seedat, 1996, Johannesburg, South Africa	Descriptive, risk factor identification, analysis of stakeholders, provides strategies for violence prevention, presents an example of a safe community in operation Centre for Peace Action.	General population in Eldorado Park violence and crime.	Defines violence as a public health problem; discusses prevention of violence in the South African context; examines regulatory, educational, and structural categories of violence intervention.	Multi-tiered intervention emphasising citizen participation, community development, and attitudinal change; provides sustained, extensive model of violence prevention at community level.
Busey, Kinyoun-Webb, Martin-McKay, & Mao, 2006, Wisconsin, US	To identify perceptions of inner city parents about early behavioural and violence prevention counselling.	Inner city parents with children \leq five years, four weeks.	Cross-sectional self administered survey found that inner city parents feel behaviour and risk of violence is important and identify doctors as a resource to help address such problems.	No validity tools; reduces the generalisability of the survey; however, it suggests that physician or clinic based prevention programmes may be well received by vulnerable communities.
Butchart, Kruger, & Lekoba, 2000, Johannesburg, South Africa	Qualitative study exploring citizens' perceptions of injury causes and solutions in order to make recommendations for research, policy, and practice in violence and injury prevention.	Residents of six neighbourhoods in a low-income Johannesburg township.	Qualitative and quantitative interview schedule. Uses content analysis to analyse qualitative responses.	Community involvement in injury prevention is a necessity but placing too much responsibility on already marginalised groups negates their ability to act on their needs for a safer existence.

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Krupnick & Vosskuhler, 2003, Burbank, California, US	Implementing a community-based violence prevention program launched simultaneously in the community and local schools.	Schools, business, community, and municipality in the city of Burbank, three years.	"Peacebuilders" primary violence prevention programme. Six core principles build individual and communal protective factors, eliminate or mitigate risk factors.	Lack of buy-in by the stakeholders compromises programme efficacy. Community-based interventions are more effective when implemented from a grass-roots level rather than a top-down approach.
Becker, Hall, Ursic, Jain, & Calhoun, 2004, Oakland, California, US	"Caught in the Crossfire" is a peer-based violence prevention intervention to reduce entry and re-entry into the criminal justice system and prevent retaliatory violence.	Youth hospitalised for violent injuries.	Youth exposed to the peer role model counselling programme were 70% less likely to be arrested in the six months following injury compared to a matched control group.	Intervention immediately or very soon after violent injury can reduce at-risk youth involvement in the criminal justice system.

RESEARCH-BASED APPROACHES TO VIOLENCE PREVENTION

A number of authors such as Brash (2004) and Butchart et al. (1996) have suggested that violence prevention programmes should be based on research evidence (see Table 5). Epidemiological data are one such piece of evidence which provides information on the incidence and magnitude of violent death and can be used as an outcome measure of a programme's efficacy. Mathews, Abrahams, Martin, Vetten, Van der Merwe, & Jewkes (2004) used epidemiological data to describe the incidence and causes of female homicides in South Africa.

Effective violence prevention needs to address not only the causes of violence, but also the methods by which violence is perpetrated. In South Africa fatal violence often involves firearms. Indeed Scott, Sanders, Reagon, Groenewald, Bradshaw, Nojilana, Mahomed, and Daniels (2001) found that firearm-related fatalities accounted for 46.1% of all homicides in Cape Town in 2001. Twelve other causes were responsible for the remaining 53.9% of homicides, indicating the overwhelming impact and extent of firearm violence in that city. NIMSS data for 2005 for the city of Johannesburg put homicide due to firearms at 24.29%. For the same period in Cape Town and Durban the figures were 18.9% and 27.3% respectively for homicide with a firearm, thus highlighting the prevalence of firearm violence in South African cities.

Prinsloo, Matzopoulos, and Sukhai (2003) noted that the homicide data used only provide information about the victims and not the perpetrators of the crime. Information about perpetrators is, however, critical for prevention purposes. Mathews et al. (2004) were able to provide some perpetrator information by following up homicide victim cases registered at mortuaries via the police, thus identifying a critical weakness in the existing collation of homicide data.

Mathews et al. (2004) also established the age, race, and occupation of perpetrators. Significantly 38% of perpetrators who killed their intimate partner, and 42% who killed non-partners, were unemployed, while 29% of intimate partner murderers were blue collar workers. This finding supports the need to address structural systemic issues in society. Mathews et al. (2004) and Butchart et al. (1996, 2000) suggested that more local research and practice in relation to violence prevention is necessary. Fanaroff, Levine, Lieberman, and Glaser (2004) and Griggs (2003) supported this view.

Fanaroff et al. (2004) and Griggs (2003) both presented research-based reports to assist local metropolitan governments to tackle crime and violence. The Fanaroff et al. (2004) report was extensive and comprehensive concluding with recommendations for interventions that take into account international best practice; the specific local findings with regard to vulnerable groups; areas and risk factors in Johannesburg; as well as existing strategies in the city to deal with crime and violence.

Griggs (2003) has reported on the Centre for the Study of Violence and Reconciliation (CSVVR) project to build crime reduction capacity in six metropolitan councils called the City Safety Project (CSP). The programme was premised on the idea that producing and disseminating relevant information about the theory and practice of crime reduction to the appropriate key players would improve the actual and potential ability of the metropolitan councils to reduce crime (Griggs, 2003). Indicators for success included: evidence in policy documents; improved understanding and use of social crime prevention in development plans and speeches; training local authorities; positive evaluations and demands for more training; demand and readership of the various reports in print and on the Internet; and a qualitative improvement in relationships, networking, and information sharing between the four major cities.

While research and dialogue are a useful part of any strategy to reduce crime and violence, they may be insufficient on their own. Griggs (2003) further pointed out that much useful literature remains unread where motivation, time, and capacity for implementation are compromised. Griggs (2003) suggested that while long-term strategies for crime and violence may be ideal from the perspective of researchers, politicians are focused on short-term deliverables making it difficult to address crime and violence issues holistically.

Table 5. Research-based approaches to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Mathews, Abrahams, Martin, Vetten, Van der Merwe, & Jewkes, 2004, Urban areas, South Africa	National study of female homicide to raise awareness about this form of homicide; to identify who kills women under what circumstances, and to contribute to the development of appropriate prevention strategies.	Female homicides in South Africa for 1999.	Survey sampling used to analyse data multiple and ordered logistic regression; 8.8 women per 100 000 14 years and older were killed by an intimate partner 4 women per day; one in every two women killed by a known perpetrator is killed by an intimate partner.	Findings point to a need for better gun control. Alcohol is implicated in partner violence indicating a need for prevention intervention with young people. Attitudinal change a common understanding of the value and quality of women's lives needs to be built.
Scott, Sanders, Reagon, Groenewald, Bradshaw, Nojilna, Mahomed, & Daniels, 2003, Cape Town, South Africa	Analysis of mortality data allows investigation of the inequities in the burden of disease, geographically, between men and women, and age groups.	The city of Cape Town, mortality data for one year (2001).	Statistical analyses provided description of the incidence, consequences, and causes of mortality; identified high-risk groups, and socio-economic discrepancies in mortality in Cape Town.	Leading cause of death in Cape Town is homicide mainly affecting young men. The pattern of distribution of these homicides should inform the allocation of resources to crime prevention programmes.

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Griggs, 2003, Six Metropolitan Municipalities, South Africa	Enhance the capacity of six metropolitan local authorities to improve safety and security; contribute to knowledge about urban safety in South Africa; assist metropolitan local governments to increase capacity for effective law enforcement and crime prevention.	The City Safety Project (CSP) targeted Metropolitan councils in Tshwane (Greater Pretoria), Johannesburg, Ekurhuleni (East Rand), Nelson Mandela (Port Elizabeth), eThekweni (Durban), and Cape Town; two years.	Programme theory three premises: Project based on a researched understanding of current conditions; social crime prevention, law enforcement, and environmental design are integrated parts of crime reduction; good communication through research, workshops, networking, and electronic means to raise awareness of ways to combat crime.	Do not engage in local interventions during a time of city restructuring. Relationships between researchers and city officials must be built and maintained. The availability of research does not ensure its utilisation.
Fanaroff, Levine, Lieberman, & Glaser, 2004, Johannesburg, South Africa	Explore the role of the city in social crime prevention; identify priority areas and priority crimes for the city to address; suggest social crime prevention programmes for Johannesburg tackling identified causes of crime and risk factors for offending and victimisation.	General population in identified risk groups and areas Project. Timescales are: quick wins 12 months; medium-term ±3 years; and long-term 5 8 years.	Interviews with key role players in public safety, social services and related disciplines. Focus group with role players from security cluster and other relevant organisations, undertook analysis of available crime statistics, and a literature survey and analysis to generate report and make suggestions.	Human Development Agenda as part of the framework to address poverty, social exclusion; and develop an outline to improve safety and security of at risk city residents. Surveys vulnerable groups and areas, profiles social fabric crime, identifies victims and perpetrators, causes, risk factors, and stakeholders, proposes pilot projects, and makes policy recommendations.

MENTAL HEALTH APPROACH TO VIOLENCE PREVENTION

Loss is an often unacknowledged aspect of violence and the particular circumstances in which at-risk youth live. Sklarew, Krupnick, Ward-Wimmer, and Napoli (2002) discussed a secondary prevention programme developed to help inner city children and pre-adolescents to cope with multiple losses and trauma. The school-based mourning project was developed, implemented, and evaluated for children in low-income inner city schools in Washington, DC. The children experienced loss due to death, divorce, abandonment, incarceration or illness and did not have access to mental health services (Sklarew, 2002). The underlying theoretical base of the mourning programme was psychodynamic. The grief groups used projective techniques (drawing, clay modelling, drama, games, stories, musical instruments) and provided a safe place for children to express difficult feelings.

The issue of loss does not appear to have been addressed in any other youth violence prevention and intervention programmes read or reviewed for this article. Sklarew et al. (2002) have highlighted a potentially important area for intervention that could reduce youth violence. One way of dealing with the persistent helplessness, emptiness, and depression caused by loss is through aggressive behaviour and/or drug use especially if the environment does not allow grieving to happen.

Table 6. A mental health approach to violence prevention

Author, date, city, and country	Aims and content of the intervention	Injury target group, setting and duration	Method and/or Outcome Measures	Lesson learnt/ Key results
Sklarew, Krupnick, Ward-Wimmer, & Napoli, 2002, Washington DC, US	Early secondary prevention model with a psychodynamic perspective; aims to reduce violent, aggressive behaviours; 45 minutes a week grief/mourning groups help deal with emotions generated through trauma and loss.	8 13 years low-income, inner city elementary school children, school-based, one year.	Pre- and post-test using: Reynolds Manifest Anxiety Scale, The Child Depression Inventory Scale, a hopelessness scale and Draw a Person Test. Experimental group revealed significant increase in developmental indicators on post-test. Control group showed no significant changes.	Intervention effective but needs to be ongoing as retraumatisation is likely. Participation of parents and parental surrogates would improve results.

The following section deals with the challenges faced in designing, implementing, and evaluating violence prevention programmes at city level generated by the papers reviewed above.

OPPORTUNITIES AND CHALLENGES IN CITY LEVEL VIOLENCE PREVENTION

Inherent in the public health approach to injury reduction and prevention is the assumption that quality injury data may be systematically and fluidly translated into empirical platforms for the development of effective injury prevention practices and policies (Krug et al., 2002). The public health model sets out four steps to guide the development of intervention and prevention programmes and policies. These are: identifying the causes and protective factors for violence; developing and testing intervention strategies; implementing strategies; and evaluating the impact of interventions and surveillance monitoring.

An important element of those violence prevention programmes reviewed that had proved successful was multi-sectoral collaboration. For example, although Baltimore’s youth prevention and intervention programmes were fairly comprehensive, they were largely ineffective due to a lack of inter-agency communication and coordination (Brash, 2004). Multi-sectoral partnerships proved highly effective in achieving the goals of violence intervention and prevention at city level as in the case of Cali and Bogotá, Colombia (Guerrero, 2006). Allied to this is the vital role of data and data sharing between agencies in guiding and informing practice, but also as an important indicator of programme outcomes.

Successful strategies for violence prevention identified by both local and international studies included:

- regulatory strategies, those that use legislative means to create barriers to people, situations, and products that may be risks for violence;
- educational strategies, those that provide information about the risk factors associated with violence with the aim of modifying behaviour and/or changing attitudes towards violence;

- structural interventions, those that improve the physical environment and enhance economic opportunity in an attempt to foster stability at the individual, family, and community level;
- technological interventions, those that utilise technology to support preventive action.

(Butchart et al., 1996; Johnson, 1999)

Butchart et al. (2000) suggested that effective injury prevention in low-income communities rests on the combination of immediate short-term interventions as well as long-term efforts to address the broader socio-ecological conditions in which the communities are entrenched. The outlined plan by Fanaroff et al. (2004) to address crime and violence prevention in the city of Johannesburg incorporates suggestions to address both systemic and specific causes of violence. The CSVR CSP experience suggested that while long-term strategies may be ideal from the perspective of researchers, politicians are focused on short-term deliverables which makes it difficult to address crime issues holistically. Underlining this point, Guerrero (2006) stated that part of the success in Bogotá was due to consistent long-term application of the policies to prevent and reduce violence over a ten-year period. Although Cali implemented the same policies, the municipal authorities lacked the political will to apply the measures, and there were considerably fewer reductions in homicide and violence.

Politicians and multiple local government or state agencies are not the only entities to consider. A number of authors have drawn attention to the importance of consultation with all key community members in formal or informal positions as their participation or endorsement of any programmes implemented in their community may impact their success (Butchart et al., 1996; Griffin & Poles Sands, 2006; Krupnick & Vosskuhler, 2003; Merkes, 2004). Along with consultation with community “gate-keepers” who facilitate access to the community, there is a need to translate information and data into terms that are relevant to the target population (Butchart et al., 1991). Dissemination of accurate information to the community is also a means of empowering them, ensuring the sustainability of the implemented policies, and achieving the desired outcomes (Guerrero, 2006).

Without evaluation, the effectiveness of city-level prevention cannot be adequately established. Many of the articles reviewed acknowledge the necessity of evaluation, but have had to rely on outcome measures which are only one element of evaluation. In two of the South African studies (Butchart et al., 2000, 1996), the use of qualitative techniques provided some idea of the potential success of particular prevention initiatives by obtaining the community understandings of causation and possible solutions that could be used to inform practice.

In many intervention initiatives the role of evaluation is limited or ignored completely. Whether broad or narrow, evaluation is a key aspect of any programme providing information about the efficacy of the programme in reducing injury related morbidity and mortality or on promoting the adoption of safety practices in communities and facilitating the replicability of the programme in other contexts (Mallonee, 2000). The South African articles reviewed show awareness of international research and best practice and are cognisant of the limitations in local prevention and intervention initiatives. According to Greene (1998), intervention and prevention of violence initiatives that have worked well in other contexts, even programmes that have undergone rigorous evaluation in the setting in which they were developed, may not travel well. Greene (1998) further suggested that programmes

designed to intervene at the community or neighbourhood level are difficult to evaluate as they do not lend themselves to the traditional experimental research design.

Although city authorities have piloted intervention programmes, they are not widely reflected in local or international literature. This illustrates a lack of collaboration between science and society, policing and research, and the sectors for prevention in general. The most successful demonstration of collaboration between all spheres of society was illustrated by the cities of Cali and Bogotá, Colombia. An important element of the success there was the effect of controlling risk factors such as restrictions on carrying weapons and limits to the sale of alcohol (Guerrero, 2006).

In the case of Bogotá, significant success was achieved by empowering the community and making them part of the process to reduce violence. The peer-based youth violence intervention in Oakland, California, also empowered the community and in part made them responsible for achieving and maintaining reduced levels of violence. While the Darebin Family Violence Working Group managed to make significant changes and improvements to the service system for individuals and families experiencing family violence, the evaluation of the project suggested that perhaps not all key stakeholders had been included in the project. The Darebin initiative underrepresented community interests and in particular may have benefited from representation of services working with boys and men (Darebin Family Violence Working Group – Evaluation of the Partnership, 2004). Involvement of the community at which intervention and prevention initiatives are aimed is crucial to their success (Butchart et al., 2000; Greene, 1998). However, Butchart et al. (2000) has cautioned against placing too much responsibility on those citizens whose marginalised status contributes to the problems within their community and makes it very difficult for them to take meaningful action to create a safer existence.

The development of a safer existence through the reduction of violence and injury can be achieved by adopting methods and strategies that have been proven internationally and locally. However, the importance of local level research into patterns of violence, and the causal and risk factors, is vital to guiding prevention policies and programmes (Butchart et al., 2000). One of the simplest approaches to violence and crime prevention in the reviewed papers was based on the “broken windows” theory described by Kelling and Bratton (1998). The basic premise is that active visible policing will reduce crime and violence through deterrence (Billante, 2003; Kelling & Bratton, 1998). Active visible policing was employed successfully in New York and in two cities in the United Kingdom, and also as part of a school-based prevention programme which placed police officers in schools in a southern city of the US. However, the success of visible assertive policing, as Kelling and Bratton (1998) referred to it, relies on a cohesive, well organised and strongly led police force that has political and economic support.

The contexts in which the “broken windows” strategy was applied were all high-income, well-developed, and resourced cities. City budgets in South Africa have many competing needs to address, and while metropolitan police departments are seen as important, the cost of increased manpower to carry out visible active policing may well be prohibitive. Major cities in South Africa have a metropolitan police force with three statutory functions, i.e. traffic policing, crime prevention, and by-law policing. Metropolitan police have powers of arrest, search and seizure within their municipal boundaries, but do not investigate crimes – that is the jurisdiction of the South African Police Service

(SAPS) (Newham, Masuku, & Gomomo, 2002). Metropolitan police seem ideally placed to carry out a concerted active visible policing strategy along the lines of the New York broken windows model.

A further consideration with regard to visible active policing is the historical role of the SAPS in South Africa and the connotation of oppression. Kelling and Bratton (1998) acknowledged that the success of such a strategy also lies in the support of the communities in which the strategy is undertaken. Other methods of deterrence include securing one's environment – a strategy wealthier individuals and businesses are able to undertake. Large perimeter walls, closed circuit television, security guards, and alarm systems are a few of the methods employed in South Africa (Griggs, 2003). Most of these measures are out of reach of those living in poverty where crime and violence are often most virulent. Deterrence through environmental design or visible policing does not address the social production of perpetrators (Griggs, 2003). This requires attention to be directed toward long-term, multi-tiered interventions that address issues such as poverty, unemployment, education, and infra-structure (Butchart et al., 2000).

CONCLUSION

This article has reviewed research focusing on city-level violence and injury prevention. The literature has revealed that a wide variety of interventions have proved to be effective at the international level, and has also suggested interventions to be implemented at the local level. The most striking finding was the limited number of documented city-level intervention strategies in both local and international literature. Although city strategic plans suggest that a number of preventive measures are currently being implemented at the city level, this study has also indicated difficulty in accessing grey literature at city level. This is due to the poor collaborative relationship between the city-level authorities and the scientific world (academic world) in dealing with violence at city level.

This lack of documented implemented programmes is a limiting factor that has implications for future research. As Haines, Kuruvilla, and Borchert (2004) have pointed out, policy makers are highly influential in determining the extent to which research findings impact health services and public health. By presenting auxiliary information such as issues of cost effectiveness and implementation procedures alongside research focusing on the causes of injury, the magnitude of homicide or the development of a programme to address violence, the uptake or utilisation of knowledge, data or research presented would be enhanced.

For cities, financial concerns are the chief dictates of policy. As Stone (2005) noted, cities are inevitably drawn to “give priority to the maintenance and enhancement of their economic productivity” (p. 241). While this may account in part for the apparent lack of city-level injury prevention programmes being implemented and evaluated, it also points to a lack of appropriate documentation of programmes that would facilitate their evaluation and further their success. In order to develop effective prevention strategies, not only is information on the circumstances leading to injury, the type and number of those injuries essential, but also information about the process, success and failure of existing programmes in particular areas of injury prevention (Cameron, 2006).

A further notable lack in most of the papers reviewed was the limited attention given to the evaluation

of implemented programmes. Many of the articles acknowledged the importance of evaluation to determine whether the particular intervention or prevention programme has achieved what it set out to do. Evaluation also exposes unintended outcomes of programmes that may or may not be positive. Crucially, evaluation also suggests areas for programme modification and continuation.

The value and role of evaluation in prevention and intervention programmes is not always understood. Griggs (2004) pointed out that evaluation is often perceived as “taking something away” from the delivery organisation and the community in terms of time, money, and opportunities for other forms of delivery. Evaluation is also more than an accounting task to achieve a funding objective. It is essential to determining the impact of a programme on violence and whether priority sites for intervention have been reached. Evaluation is also essential to determine the costs and benefits of a programme, and to respond to aspects of a programme that are not effective as anticipated.

RECOMMENDATIONS

In order to conquer the obstacles encountered by South African city-level violence prevention programmes, there is a need to facilitate interaction between policy makers, stakeholders, and the community in order to cement the sustainability and viability of the intervention measures. Selecting the best approach to deal with city-level injuries requires an understanding of why current patterns of policy and practice exist, and the strategy selected must be consistent with the local context and the behaviour to be targeted (Butchart et al., 1996, 2000; Fanaroff et al., 2004). Given the potential for improvement in city-level violence prevention resulting from the utilisation of research findings for common violent injuries faced in the cities, finding cost-effective ways of promoting the uptake of evidence-based interventions should be a priority for researchers and city-level authorities.

In addition, when considering the nature and dynamics of violent crime prevention in South Africa, it is unfair and irresponsible to leave sole control and management of violence to the criminal justice system, i.e. the police, courts and prisons. The activities of the criminal justice system are reactive rather than preventative and the SAPS usually respond to crimes during or after they have been committed (Griggs, 2003). Similarly, the courts and prisons can only deal with offenders who have been arrested after they have committed an offence. However, one of the central roles of metropolitan police services is being proactively focused on the prevention of crime. Thus, the metropolitan police, with cooperation and assistance from the SAPS and other local governmental structures, seem ideally placed to become a significant part of a multi-tiered city-level crime and violence prevention strategy.

The most significant conclusion to be made from the literature presented in this article, and the auxiliary sources consulted, is that the local context, local resources, and local research are key to developing and implementing successful crime, violence, and injury prevention and intervention programmes. There is much value to be derived from consulting international research and implementing evidence-based approaches for the prevention of violence. However, as Griggs (2003), Butchart et al. (2000), and Greene (1998) have pointed out, not all prevention initiatives “travel well” and specific local contextual factors may produce entirely unexpected outcomes and require unique solutions. Achieving the goal of reducing violence and its multiple costs at individual, family, and

societal level requires the participation of the rich resource of researchers in South Africa, local and state governmental structures, and the affected communities.

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