

Public health and the potential benefits of Crime Prevention Through Environmental Design

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Abstract

Studies have consistently found that safety and security are major public concerns, however, crime is rarely considered as an outcome in public health. The recent planning policy shift towards promoting compact, 'walkable' communities close to public transport aims to redress many of the problems associated with urban sprawl. However, communities who do not feel safe are less likely to be active citizens. This paper argues that Crime Prevention Through Environmental Design (CPTED) has potential benefits for public health in the provision of local crime risk assessments and in delivering safer environments, which can support active living, walkable communities and public health.

Introduction

Human settlements have always sought to provide for the safety, security and the well-being of their residents. However, industrialisation and urbanisation created a range of new threats to public health and wellbeing. The rapid, unplanned and 'laissez faire' expansion of cities in the twentieth century resulted in overcrowding, pollution, poverty, disease, 'anomie'¹ and crime with cities becoming containers of problems as well as places of vitality and excitement.

Today, crime is still a public health problem and studies consistently find that safety and security are the first priority of the urban poor.^{2,3} In Australia, the financial costs of crime to the community have been estimated to be approximately \$32 billion per annum⁴ and studies consistently reveal that significant sections of the community are fearful for their personal safety when using or visiting the city⁵ and some citizens may simply not use the city at all.

Crime and the fear of crime are certainly not evenly distributed throughout the city both spatially and temporally and the notion of 'hot spots' of crime (where / when crime and / or fear of crime are highly concentrated) has received increasing attention in recent years.⁶⁻⁹

Crime and public health have similar origins¹⁰ and outcomes can be improved using similar approaches (e.g. improving socio-economic conditions and enhancing social capital). The affect of the built environment on crime and public health indicates that its design and modification can be used as an effective planning tool.

During the public health era (19th century USA, Great Britain and Australia) people with tuberculosis and people who engaged in criminal behaviour were both categorised as threats to society and governments used early examples of Crime Prevention Through Environmental Design (CPTED) thinking to tackle both issues simultaneously¹¹. This paper argues that CPTED has various potential public health benefits for present and future generations.

Crime prevention through environmental design

CPTED is also known as Designing Out Crime is a place-based strategy which argues that "the proper design and effective use of the built environment can lead to a reduction in the fear of crime and the incidence of crime, and to an improvement in the quality of life"¹². It builds upon four key strategies of territoriality (sense of ownership), surveillance and access control and promotes activities within space including higher densities and mixed-use development in order to optimise the number of potential "eyes on the street"¹³. Evidence also supports the routine maintenance and management of urban space and the discouragement of the under-use of space (eg, dereliction and / or vacancy) as crime prevention strategies¹⁴⁻¹⁶ and this 'image' element is also critical to CPTED¹⁷. CPTED has application at the micro (building security), macro (street / neighbourhood), and meso (town / city) levels, where risk assessments and community participation are vital components of the CPTED process. CPTED is best applied at the design stage but is also used to modify existing urban environments. Research has reported positive reductions to levels of recorded crime and fear of crime for

CPTED-style developments in the UK¹⁸⁻²¹ and more recently, a major international review of CPTED firmly demonstrates its efficacy as a crime prevention strategy²².

Criminological research has consistently indicated that crime is most prevalent in societies with significant disparities in the quality of life of its citizens^{23, 24} and within these societies, crime and the fear of crime concentrates in specific places and at specific times.^{6, 7}

Public Health and Crime

Criminology and public health have traditionally focused on the behavior and characteristics of the individual. However, the fields of injury prevention and crime prevention both now recognize the importance of investigating the characteristics of the event itself.²⁵

A large proportion of crime is dependent on the opportunities provided by the environmental setting.^{7, 10, 26, 27} Increased levels of crime have been associated with locations where people congregate including; transit stations (rail and bus), drinking establishments and alcohol outlets, car parks, shopping malls^{6, 7}. Similarly, the environment can affect opportunities for public health¹⁰ such as the proximity to playgrounds²⁸, walking / cycling amenities²⁸⁻³⁰, alcohol outlets³¹ and the presence of boarded-up houses.¹⁵⁻¹⁷ Indeed, public health researchers have recently investigated CPTED as a violence prevention strategy²⁵.

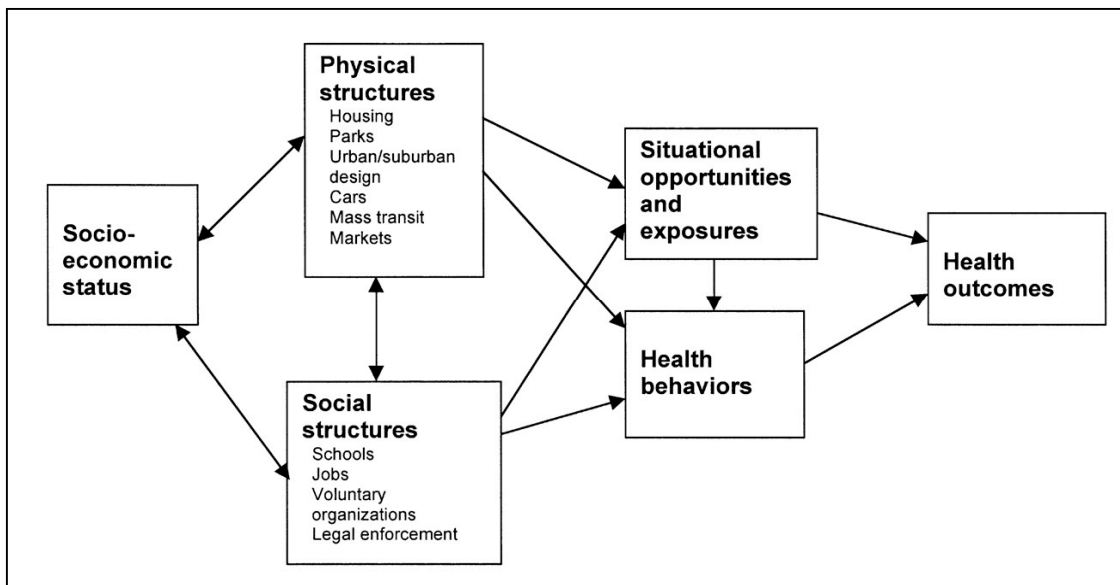
Crucially, Wallace *et al*^{32, 33} have identified the deterioration of inner cities as contributing to the spread of HIV and tuberculosis, violence, and a variety of health disparities and highlight the potential importance of the physical environment in reducing these opportunities and influencing health.

The current policy support for New Urbanism and the promotion of compact, high-density, mixed-use, walkable environments close to public transport clearly seeks to reduce the problems associated with urban sprawl such as car-dependency, congestion and pollution. These ideas also promote active living (e.g. walking) and seek to address the public health issues of sustainable development and the rising levels of obesity. CPTED has potential

public health benefits by reducing opportunities for crime at the design to support initiatives to encourage walking and social activities.

A study by Cohen *et al*³⁴, suggested that one of the factors that should be considered in attempting to improve the health of communities is the level of physical deterioration of neighborhood buildings – a central component to CPTED. Figure 1 illustrates how situational factors can affect health outcomes.

Figure 1. Environmental influences on health



Source: Cohen D, et al. Am J Public Health 2003; 93: 467-71.³⁴

Crime is a mirror of the quality of the social environment and an indicator of community well-being and “physical conditions are not merely a consequence of social structures; rather, they are likely to be in dynamic relationship with social structures”³⁵.

Indeed, the presence of surveillance opportunities does not necessarily ensure that surveillance is taking place and urban space can become ‘undefended’³⁶ by residents. As a result, Second Generation CPTED³⁷ has recently evolved and seeks to engender positive social activities and diversity to encourage neighbours to take ownership of space and to take advantage of natural surveillance. This concept promotes neighbourhood capacity and community culture, cohesion, and connectivity.^{38,39} CPTED is also being

applied to products in order to reduce vulnerability to crime⁴⁰. The use of tempered glass to reduce violent incidents of ‘glassing’⁴¹ is one example, which has obvious potential benefits for public health.

Implementation and Future Direction in Australia

At the national level, the Australian and New Zealand Crime Prevention Senior Officers Group has endorsed CPTED codes and principles and all states are implementing such programs. This national body is seeking to amend the Australian Building Codes and embed CPTED principles within the planning process and ensure that the criminogenic potential of new urban developments is considered and minimised at the initial design stage.^{42, 43}

The national commitment to CPTED is arguably one example whereby the precautionary principle is being implemented. In WA, housing projections for 2031 estimate 375,000 new homes will be required⁴⁴ and that most (60%) will be built in existing urban areas. The publication of Designing Out Crime Planning Guidelines⁴² supported by Planning Bulletin No.79⁴³ and a State Designing Out Crime Strategy to embed such ideas within the planning process and within product design clearly represents a commitment to development that will help to meet the needs of the present – and those of future generations. In New South Wales (NSW), the *Safer By Design*⁴⁵ program uses CPTED risk assessments and introduced Crime Prevention Legislative Guidelines to Section 79C of the Environmental Planning and Assessment Act (1979). This requires that consent authorities ensure that development provides safety and security to users and the community.

Significantly, the UK’s Home Office has recently released a new crime strategy “Cutting Crime: A New Partnership”⁴⁶, which among other strategies, promotes CPTED. The report notes “there are now over 100 documented case studies showing how crime has been reduced by modifying places, products and services and removing the opportunities for theft, violence or vandalism.”⁴⁶

However, firm policy support for CPTED does not guarantee that CPTED is being implemented or that crime is being considered at the planning stage of

the development process. Currently, CPTED in Australia and the UK is largely optional for developers to consider and crime risk assessments are not statutory (with the exception of NSW).

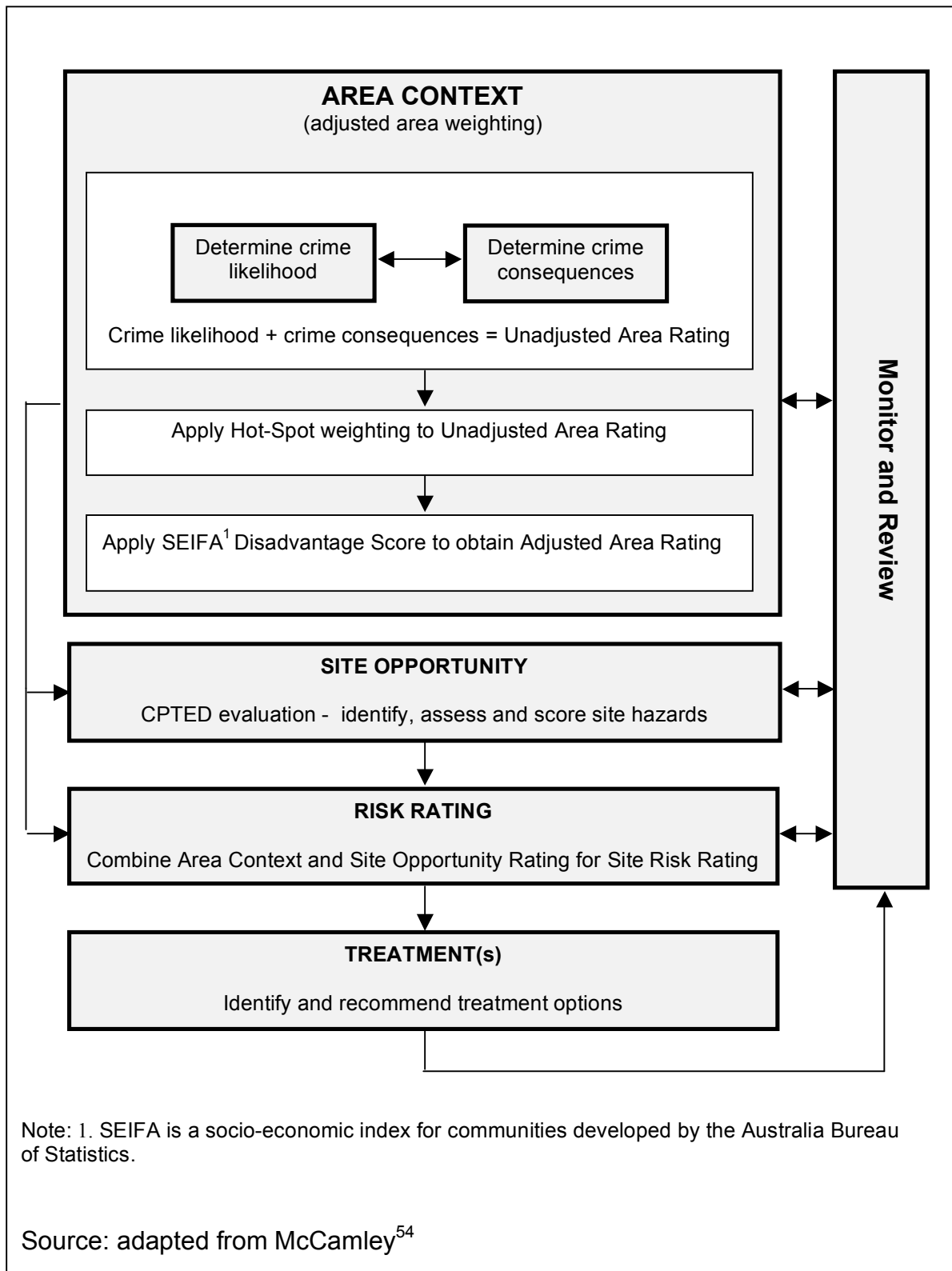
Environmental and Impact Assessments (EIA) have been practiced in Australia since the early 1970's however, human health considerations have been limited.⁴⁷ Social Impact Assessments (SIA) are often carried out as part of, or in addition to EIAs and seek to manage the intended and unintended social consequences of development. However, the International Principles Social Impact Assessment⁴⁸ does not mention crime and crime risk assessment is not part of the EIA process.

Health Impact Assessments (HIA) seek to predict the health impact of a development before implementation and early in the planning stage. The need for HIAs to be conducted explicitly in any environmental or economic decision-making process was strongly endorsed by the National Health and Medical Research Council (NHMRC) in 1992. Crime is not part of the current HIA process.

Clearly, crime risk assessment is not included in EIAs, SIAs or HIAs. In terms of health impact assessments for new developments, Northbridge and Sclar⁴⁹ argue "it is imperative to reinvigorate the historical link between planning and public health". They discuss integrating urban planning and public health with other frameworks such as the ecosocial perspective⁵⁰, health and human rights⁵¹, the precautionary principle⁵² and sustainable production⁵³ to better understand and practice health impact assessments.

Until more formal crime risk assessment process become available, the CPTED process represents a basic tool for assessing crime risk associated with new developments. Figure 2 illustrates a model developed by McCamley⁵⁴ which "employs a qualitative and quantitative measures of the physical and social environment to create a contextually adjustable approach for the analysis and treatment of crime".

Figure 2. CPTED Crime Risk Evaluation Matrix



Although it will be a challenging task, integrating existing assessment frameworks such as EIAs, SIAs, HIAs and crime risk assessments (CRAs) represents a more holistic approach to assessing the multiple impacts of any development.

This paper argues the case for crime to be included in these frameworks and suggests CPTED is a useful process for conducting local crime risk assessment and in reinvigorating the links between public health and urban planning.

Conclusion

CPTED is *not* a panacea and although it does not guarantee that a city is safe from crime and the fear of crime, it can help create supportive physical environments for social and economic initiatives⁵⁵. It works best as part of a broad range of crime prevention strategies, which include the criminal justice system and both offender and victim-focused approaches. Crucially, Brantingham and Brantingham⁷ have argued for a broader consideration of CPTED within planning and likewise, within the public health arena there are similar calls to consider place-based crime prevention strategies¹⁰. McDonald⁵⁶ has observed “public health can make a valuable contribution to violence prevention and cover a much broader spectrum than can the criminal justice system alone.” As a proactive crime prevention strategy, CPTED represents a multidisciplinary approach that has application for public health, planning and crime prevention practitioners. CPTED also represents a process for collaboration across disciplines.

In the absence of any crime risk assessment model, CPTED represents a process for assessing local crime risk at the design stage. It can also reduce crime and fear of crime and contribute towards the design and management of urban space to support active living, walkability and public health.

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