

Problem solving for crime prevention

Adrian Cherney

Problem solving methodology is at the heart of crime prevention strategies used by law enforcement agencies across Australia and around the world. The technique typically involves a systematic use of solid data and extensive progress evaluation, with an emphasis on theory, contextuality, and implementation. This paper uses existing literature to highlight the place of problem solving in crime prevention, and the need for flexibility, responsiveness, and the need for an understanding of context in using problem solving techniques. It calls for problem solving to play a greater role in the efforts of criminologists to develop crime prevention programs, and stresses the need for the recording and exchange of information between crime prevention practitioners.

Toni Makkai
Director

Introduction

The adoption of a problem solving methodology is regarded as a core component of crime prevention good practice. The approach is underpinned by a series of steps that involves problem identification and crime data analysis, the selection of strategy objectives and interventions based upon this assessment process, implementation (via some form of partnership) and evaluation of impact (Laycock 2005). Its use is supported by numerous prominent figures, such as the pioneer of problem oriented policing Herman Goldstein (2003) and Ron Clarke (1997) who regard it as an essential component of any situational crime prevention project. Eklom (2002) sees the approach as a core element of effective crime prevention planning, with it also broadly underpinning the Communities that Care model of developmental crime prevention (Hawkins & Catalano 1992).

The aim of this paper is to discuss both the theoretical and practical bases of crime prevention problem solving and in particular to focus on factors that impact on the successful adoption of the problem solving approach. Different models of crime prevention problem solving are briefly outlined. The necessity of building problem oriented responses to crime based on a good understanding of theory is highlighted. In addition, understanding the relevance of context is discussed, particularly as it relates to the process of implementation, as is the need for crime prevention problem solving to be both flexible and responsive to various challenges posed by strategy development and implementation. Knowledge of these issues is important to improving the skills of crime prevention practitioners.

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Models of crime prevention problem solving

A number of schematic guides have been developed to assist practitioners to apply the problem solving methodology in practice, the best known being the SARA model (*Scan, Analyse, Respond, Assess*). Hough and Tilley (1998) provide a more detailed elaboration (see Figure 1 below), and Ekblom (2003) has developed a problem solving process referred to as the 5 Is model. This involves the gathering and analysis of information on the specific crime problem (*Intelligence*), selection of the full potential repertoire of responses to address proximate and distal causes of the problem in question (*Intervention*); action to convert interventions into practical methods (*Implementation*); mobilisation of key stakeholders and agency participants (*Involvement*) and evaluation of outcomes (*Impact*).

An essential thrust of the problem solving approach is the need to be systematic about the process and to avoid jumping to a solution before the problem assessment stage has been carried out. In-depth problem analysis derived from solid data is very much seen as the linchpin of the methodology given that

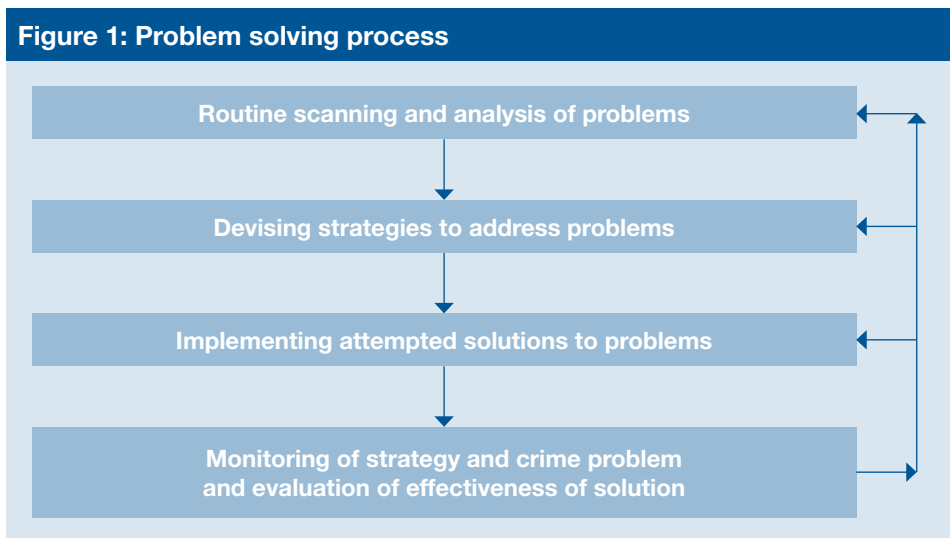
it will determine the success of the final result (i.e. the response and its impact). Evaluation of progress and results and feeding this information into all stages of the problem solving process are likewise regarded as essential to ensuring that it remains iterative (Clarke & Eck 2005, 2003; Forrest, Myhill & Tilley 2005; Sutton 1996).

In addition to the features of crime prevention problem solving outlined above, there are other elements that are also essential to its successful application. They include theory informed problem solving, context sensitive problem solving, flexible problem solving and responsive problem solving. These elements are increasingly being recognised as important to the overall task of problem solving which is acknowledged as quite complex (Cherney 2004a; Forrest, Myhill & Tilley 2005; Hope 2005; Sutton 1996). They are particularly important to lesson learning and skill acquisition within the crime prevention field. While the capacity to conduct in-depth analysis of specific patterns of behaviour or crime hotspots is vital to the overall endeavour of problem identification and strategy development, it is only one part of a broader task.

Theory informed problem solving

In applying the problem solving process to crime prevention, it is important that any selected interventions are the logical extension of a sound theory (Eck 2005, 2002). This might be stating the obvious, but in practice it is often overlooked. Relevant crime data on their own will not reveal the most applicable interventions; rather, it is the use of sound theory that will (Eck 2005).

This is important because theory helps to understand problems and interpret outcomes including how reductions in crime were or were not achieved (Eck 2002). For example, routine activity theory and situational crime prevention facilitate understanding of place-based crime problems and help to interpret outcomes by identifying whether interventions strengthen capable guardianship via increasing risks and efforts, reducing rewards and provocations or removing excuses for crime (Eck & Clarke 2003; Eck & Weisburd 1995). Without the theory of routine activity, understanding the nature of crime hotspots and selecting applicable solutions based upon different forms of guardianship (whether formal or informal) would be difficult. If the way interventions will have an impact has not been considered (that is, by exploring their theoretical roots), it will be impossible to interpret results relating to success or failure. Learning if a particular approach to prevention was accurately implemented can only be achieved if there is a deep understanding of the theory underpinning the adopted strategy. Such knowledge, backed by data, helps practitioners make informed judgments about whether an intervention was a sound replication of a particular theory of crime prevention.



Source: Hough & Tilley (1998: 7)

Testing theory is thus critical to lesson learning in crime prevention (Eck 2005). It could be argued that all crime prevention strategies are underpinned by some theory, but research attests to the fact that often the key priority for practitioners (especially within local authorities and police agencies), is to get projects up and running immediately, due to key demands of funding agencies, political sponsors and stakeholders to achieve runs on the board (Cherney 2004a, 2004b). This tends to undermine consideration of such theory informed questions as 'how will interventions reduce a particular problem', prioritising instead the question 'what interventions will reduce a problem'. Simple concern for the latter is misleading because it is not crime prevention techniques that are transferable from one problem to another, but the theories underpinning them. Eck (2002: 105) highlights this by stating:

The theories do not dictate specific actions, but provide a framework for the creation of context relevant interventions. In this example, the answer to the question 'what works?' to prevent crime at places is 'routine activity theory and situational crime prevention'. The answer is not, CCTV, lighting, locks, management screening of prospective tenants, nuisance abatement, street redesign or any other measure. These are tools that might work in some circumstances but probably do not work in every circumstance.

The question remains, which theory? It is not the aim here to argue the merits of particular theories of prevention. There is an important role for criminologists to play in this regard by helping to develop theories that assist in identifying specific interventions (Eck 2005; Tilley 2004, 2002). If theories of prevention fail to do so, or do not provide insights into

responses that fall within the scope and capacities of agencies (e.g. police, local government), they can be disempowering. That is, crime problems can be approached at different levels and any theory of prevention has to be compatible with the capacity of agencies to put the theory into practice. Frameworks based on routine activity, rational choice and situational crime prevention as well as developmental crime prevention do provide theory-derived interventions. The challenge for crime prevention practitioners is selecting those that are most relevant; the trick is in also understanding the impact of context.

Context sensitive problem solving

One of the key aims of the problem solving methodology is to guide good practice by ensuring that responses are matched to specific crime problems. However, the impacts of interventions (theories) are mediated through the settings in which they are implemented, i.e. they are context contingent (Tilley 2001). Context relevant variables include the social, cultural and physical setting in which the problem solving process is being carried out, the target group of the interventions, the political climate (e.g. if there is a high level of political commitment to addressing the crime problem in question), knowledge and skill levels of practitioners and responsible agents, and finally the action of partners (e.g. changing levels of commitment). Implementation success is contingent upon understanding the ways such factors determine what works.

For example, Crime Prevention Through Environmental Design (CPTED) has become a core strategy of a number of crime prevention schemes internationally, with local government and police in Australia, Europe and the United States

taking a major interest (e.g. through the development of CPTED guidelines; see Western Australian Office of Crime Prevention 2005). One prominent CPTED approach is to enhance access control within particular environments by improving what is termed territoriality. This refers to attitudes among legitimate residents and users of space that promote ownership of that space, and encourage them to assert control over it by monitoring its use and restricting access. This can be achieved via the use of both physical and symbolic barriers, for example, through the use of gates or changes in footpath textures, and design of housing frontages and courtyard areas. However, such attempts to facilitate territorial influence may only be effective in neighbourhoods characterised by high levels of home ownership, which help generate a sense of proprietorship, potentially influencing feelings of territoriality. Such factors may not exist in areas characterised by different demographics such as high levels of people renting, and hence such CPTED approaches may not be effective. Mayhew (1979) illustrates how similar social variables can mediate the impact of CPTED techniques. This is not raised in order to dismiss the efficacy of CPTED, with research supporting its effectiveness (Cozens, Saville & Hillier 2005). It is used to illustrate that thinking through how context impinges on the impact of crime prevention strategies is important in ensuring success and identifying whether particular strategies will work across different contexts. Failure to do so is a key reason that program replication in the crime prevention field has such a dismal record (Crawford & Jones 1996; Hope 2002; Tilley 1993).

Context also matters in relation to understanding the differential impact of crime prevention approaches. For example, a recent meta-evaluation by

Welsh and Farrington (2004) into CCTV and street lighting indicated that their impact on crime in public space varied according to the specific environments in which they were adopted and the crimes they targeted. Despite CCTV and improved street lighting being underpinned by a coherent theory of prevention, key differences in their impact in the United Kingdom and the United States were evident. The response of target groups is also relevant. Sherman's (1992) seminal work on mandatory arrest for domestic violence in the United States showed that it was effective when the arrestee was white and employed but counterproductive when the arrestee was black and unemployed. Similar differential impacts have been reported in relation to the effectiveness of restorative justice conferencing on different types of offenders (Sherman, Strang & Woods 2000).

The above is not aimed at reifying context to such an extent that it leads to the conclusion that no valid lesson can be derived from efforts to implement crime prevention in other jurisdictions, or that little can be learnt from program evaluation. While local adaptability may be required in any attempt to replicate a strategy and understanding how is important, it may not be necessary across all contexts, especially if problems and target groups are similar. The key point is that contexts make the job of problem solving challenging, and understanding how is relevant to building skills around its successful application in practice.

Flexible problem solving

As illustrated by the above discussion, good problem solving is a complex task and involves more than the capacity to conduct crime data analysis or respond in an evidence-based fashion. Research literature is increasingly highlighting

practitioner flexibility as also critical (see Cherney 2004a; Homel et al. 2004a; Hope 2005).

The capacity for flexibility is important in relation to responding to challenges that different phases of the problem solving process may present. This is particularly pertinent during the intervention phase. For example, Hope (2005), who was part of one of the university consortia that evaluated the United Kingdom Reducing Burglary Initiative (part of the UK Crime Reduction Programme), found that the most successful projects were those that remained flexible and adapted to changing circumstances, such as changing their implementation plans in response to the take-up rate of burglary projects. Research by the author (Cherney 2004a, 2004b) into the crime prevention/community safety officer role within local authorities in Victoria, found that a core skill for officers was the capacity to respond and adapt to varying degrees of agency commitment to being involved in problem identification and analysis and the implementation of initiatives. Finding ways to facilitate ownership of the problem solving process and specific schemes by relevant agencies and organisations was critical.

To associate the dynamics of flexibility with problem solving may seem tautological, in that it could be argued that all problem solving by its nature is flexible. This is far from the case, with reviews of the UK Crime Reduction Programme illustrating how iterative forms of problem solving can be undermined by central government policy (Homel et al 2004a; Hope 2005; Maguire 2004). What is particularly informative from UK experience is how centrally driven models of crime prevention can work against local innovation by undermining practitioner flexibility (Homel et al 2004a, 2004b).

This can actually diminish the evidence base on effective approaches to prevention. Flexibility is essential to innovation, not just as it relates to adopting techniques of prevention, but also in relation to the task of leveraging, that is, finding ways of drawing competent third parties into the process of problem analysis and response. Research is beginning to identify a number of ways in which police can leverage responsible third parties (see Cherney, O'Reilly & Grabosky forthcoming; Scott 2005): this is also applicable to the field of crime prevention (Laycock 2004). Likewise understanding the dynamics of flexible application in practice is also relevant to accumulating useful evidence about implementation, given that the process rarely follows a sequential path (Hope & Murphy 1983). Hence problem solving requires various types of knowledge – from technical skills (crime analysis and auditing) to know-how knowledge (Ekblom 2002), that is, insights into local politics and capacity to manage diverse organisational demands and negotiate consensus between different personalities that participate in a crime prevention partnership. Building such competencies is important to broadening the knowledge base around effective local practice that is of direct relevance to police and practitioners involved in the problem solving process.

Responsive problem solving

As indicated in previous sections, practitioners need to be aware of, and responsive to a number of key issues when adopting the problem oriented approach. This awareness also extends to asking such questions as whether problems are simply one-off or part of a cluster of recurring incidents (Eck & Clarke 2003). Addressing the latter is what underpins systematic and effective problem solving (Clarke & Eck 2005).

Being responsive also extends to practitioners avoiding the adoption of crime prevention strategies that simply exacerbate exclusionary tendencies towards target groups. This can simply increase the problem by precipitating negative reactions or lead to displacement (Grabosky 1996). This, however, will largely be determined by the ways in which certain interventions are applied. For example, a key criticism of situational crime prevention is that many of its techniques are implicitly premised on principles of exclusion, that is, they aim to control access to public and private space by excluding specific groups identified as risks to security (see the collection by Von Hirsch, Garland & Wakefield 2000). Such criticism is misplaced, however, as situational crime prevention as both a theory and body of techniques is neutral in relation to offender motivation, assuming that anyone might exploit opportunities for crime (Clarke 2005). It is far less judgmental than some forms of social prevention (e.g. those that focus on at-risk youth), given that it works on the basis that while specific behaviour may be unacceptable, the person responsible does not necessarily need to be changed in any fundamental way. Such neutrality means that situational crime prevention only runs the risk of exclusion in relation to how it is implemented in practice (Clarke 2005). It is the application of the technique that determines whether it is exclusionary and might create more problems than it actually solves. Being responsive to this possibility, and aware of the implications of applying a particular technique of prevention in certain ways, is relevant to the overall task of problem solving given that the methodology is concerned with promoting an analytically informed and creative set of practices that merit replication.

Conclusion

There are many different elements to crime prevention good practice. When adopting the problem solving approach to strategy development, being evidence-based is just one aspect of an overall complex task. Success also boils down to being theory informed, context sensitive, flexible and responsive. In order to learn valuable lessons from the application of the problem solving approach, understanding how these elements impact on its effectiveness is essential. Accumulating such knowledge is reliant on whether practitioners record and share experience. In this context, criminology has a role to play not just in empirically testing different strategies of prevention, but also paying attention to the science of integration and implementation (Hemel 2005), which is concerned with many of the process- and method-related issues canvassed in this paper.

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