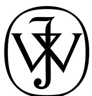
OFFENDER REHABILITATION AND TREATMENT

Effective Programmes and Policies to Reduce Re-offending

Edited by

James McGuire

Department of Clinical Psychology, University of Liverpool, UK



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OFFENDER REHABILITATION AND TREATMENT

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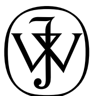

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James McGuire is a Reader in Clinical Psychology and Programme Director of the Doctorate in Clinical Psychology at the University of Liverpool, UK. He obtained his first degree in psychology at the University of Glasgow, his PhD in psychology from the University of Leicester based on cross-cultural research carried out in Hong Kong, and obtained an MSc in Clinical Psychology at the University of Leeds. He has previously held posts at the University of Edinburgh and University College London, and was for a time self-employed as a training consultant. He is a Chartered Clinical and Forensic Psychologist and carries out assessment of offenders for criminal courts and Mental Health Review Tribunals. He has conducted research in prisons, probation services, adolescent units and secure hospitals on aspects of the effectiveness of treatment of offenders and related topics. His recent work has included assessment of self-control of aggression in young offenders, and development and evaluation of social problem-solving training programmes. At present he is engaged in research projects funded by the Home Office Research, Development and Statistics Directorate, HM Prison Service, the Youth Justice Board, and the High Security Psychiatric Hospitals Commissioning Board. He is also involved in a range of consultative work with criminal justice agencies, has served on a number of advisory panels in this field in the United Kingdom and Canada, was co-organiser of the 'What Works' series of conferences and is the author or editor of eleven books and over seventy other publications.

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SERIES EDITORS' PREFACE

ABOUT THE SERIES

At the time of writing it is clear that we live in a time, certainly in the UK and other parts of Europe, if perhaps less so in areas of the world, when there is renewed enthusiasm for constructive approaches to working with offenders to prevent crime. What do we mean by this statement and what basis do we have for making it?

First, by "constructive approaches to working with offenders" we mean bringing the use of effective methods and techniques of behaviour change into work with offenders. Indeed, this view might pass as a definition of forensic clinical psychology. Thus, our focus is the application of theory and research in order to develop practice aimed at bringing about a change in the offender's functioning. The word *constructive* is important and can be set against approaches to behaviour change that seek to operate by destructive means. Such destructive approaches are typically based on the principles of deterrence and punishment, seeking to suppress the offender's actions through fear and intimidation. A constructive approach, on the other hand, seeks to bring about changes in an offender's functioning that will produce, say, enhanced possibilities of employment, greater levels of self-control, better family functioning, or increased awareness of the pain of victims.

A constructive approach faces the criticism of being a "soft" response to the damage caused by offenders, neither inflicting pain and punishment nor delivering retribution. This point raises a serious question for those involved in working with offenders. Should advocates of constructive approaches oppose retribution as a goal of the criminal justice system as a process that is incompatible with treatment and rehabilitation? Alternatively, should constructive work with offenders take place within a system given to retribution? We believe that this issue merits serious debate.

However, to return to our starting point, history shows that criminal justice systems are littered with many attempts at constructive work with offenders, not all of which have been successful. In raising the spectre of success, the second part of our opening sentence now merits attention: that is, "constructive approaches to working with offenders *to prevent crime*". In order to achieve the goal of preventing crime, interventions must focus on the right targets for behaviour change. In addressing this crucial point, Andrews and Bonta (1994) have formulated the *need principle*:

> Many offenders, especially high-risk offenders, have a variety of needs. They need places to live and work and/or they need to stop taking drugs. Some have poor self-esteem, chronic headaches or cavities in their teeth. These are all "needs". The need principle draws our attention to the distinction between *criminogenic* and *noncriminogenic* needs. Criminogenic needs are a subset of an offender's risk level. They are dynamic attributes of an offender that, when changed, are associated with changes in the probability of recidivism. Noncriminogenic needs are also dynamic and changeable, but these changes are not necessarily associated with the probability of recidivism. (p. 176)

Thus, successful work with offenders can be judged in terms of bringing about change in noncriminogenic need *or* in terms of bringing about change in criminogenic need. While the former is important and, indeed, may be a necessary precursor to offence-focused work, it is changing criminogenic need that, we argue, should be the touchstone in working with offenders.

While, as noted above, the history of work with offenders is not replete with success, the research base developed since the early 1990s, particularly the meta-analyses (e.g. Lösel, 1995), now strongly supports the position that effective work with offenders to prevent further offending is possible. The parameters of such evidence-based practice have become well established and widely disseminated under the banner of "*What Works*" (McGuire, 1995).

It is important to state that we are not advocating that there is only one approach to preventing crime. Clearly there are many approaches, with different theoretical underpinnings, that can be applied. Nonetheless, a tangible momentum has grown in the wake of the "*What Works*" movement as academics, practitioners, and policy makers seek to capitalise on the possibilities that this research raises for preventing crime. The task now facing many service agencies lies in turning the research into effective practice.

Our aim in developing this Series in Forensic Clinical Psychology is to produce texts that review research and draw on clinical expertise to advance effective work with offenders. We are both committed to the ideal of evidence-based practice and we will encourage contributors to the Series to follow this approach. Thus, the books published in the Series will not be practice manuals or "cook books": they will offer readers authoritative and critical information through which forensic clinical practice can develop. We are both enthusiastic about the contribution to effective practice that this Series can make and look forward to continuing to develop it in the years to come.

ABOUT THIS BOOK

In 1995 we were instrumental in bringing about the publication, through John Wiley and Sons, of James McGuire's edited text *What Works: Reducing Reoffending*. We knew at the time that this was an important book because it drew together so many connected strands to form a compendium on the state of the art at that time. It is not a surprise that the book has been successful and many of the chapters widely cited in the literature. Further, as we knew it would!, the "What Works" ideal has become a major force in forensic work in the UK in both prisons and the

community. In a rapidly changing field, the time since the publication of *What Works: Reducing Reoffending* has seen a great deal of movement in both theory and practice in the assessment and treatment of offenders (Hollin, 2001). The current practice agenda is very much concerned with issues of implementation and evaluation of work with offenders, as seen in another book in this Series edited by Bernfeld, Farrington, and Leschied (2001). At the forefront of conceptual thinking are issues concerned with connection of the What Works ideas with treatment for "specialist offenders", such as mentally disordered offenders and sex offenders, and with broader criminological thinking (Crow, 2001).

These practical and conceptual concerns are reflected in the contents of this book, again collected and edited by James McGuire, which offers a companion to the earlier text. There is much to take from this book, but perhaps there are three matters of particular note. First, there is the welcome return of theory as a topic for discussion. The findings of the meta-analyses heralded an upsurge in practice which has not been matched by a similar consideration of theoretical issues. Several of the chapters here begin to make welcome moves in that direction. Second, the growing sophistication regarding the economic analysis of the effects of treatment. In is very much a part of current thinking that interventions must show themselves to be effective in economic as well as human terms. This is not a level of analysis that should cause concern: there is little doubt that effective work with offenders will pay its own way and more. Finally, the willingness of psychologists to engage in wider debates about social policy on the basis of sound research evidence and strong practice. These matters are set, one might venture, to become the issues over the next few years, after which we'll ask James to do the third book!

Clive Hollin and Mary McMurran

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PREFACE

There is a widely shared view that we live in an era of *evidence-based practice* in which the direction of public policy in many fields should be informed by relevant research. On one level it may seem odd that things could ever have been otherwise. But the process of translating research findings into an interpretable form, in which their potential implications can be clearly and consistently discerned, is far from easy. The debate continues over whether "EBP" is a passing fashion or here to stay. In challenging its rise to prominence, some commentators raise the deeper question of what precisely constitutes evidence. The best research is usually considered to be that in which as many as possible of the operating variables are controlled. Paradoxically, the greater a researcher's success in achieving this, so the argument runs, the less relevant the findings are for practice. The cleanest, best-designed studies are conducted in conditions quite unlike those that are found in applied settings. So the more rigorously designed an investigation, the more it appears distant from the "real world" and lived experience of people where, among other things, acts of crime occur. Difficulties of this kind have led some to reject the concept of social science as a valid or meaningful approach to inquiry.

This book is founded on the view that research can be an enormously valuable resource in helping to solve human problems. In addressing the issue of how it can be applied in criminal justice I hope it will take the subject matter one step (or more) forward from where it currently stands. The book contains several chapters summarising the findings of recent large-scale, systematic reviews of intervention studies. It is also designed to explore a number of unresolved issues within those fields, to present findings and ideas relevant to them and to explore questions that to date have remained unanswered.

There is an important and useful distinction between three levels of prevention to reduce crime. The first is called *primary prevention*. It is usually of a long-term nature, in which resources are invested in designated ways in certain areas (such as high crime neighbourhoods) to improve the overall life opportunities of families and developing children. Alternatively it may consist of situational strategies such as target hardening, increased security or surveillance or other environmental measures. *Secondary prevention* has a slightly different objective: it is focused on recognised "at risk" populations, such as children who are truanting from school or experimenting with drugs, to prevent involvement in delinquency. *Tertiary prevention*, focused on adjudicated offenders (those already convicted of crimes), is the familiar terrain of those who work in penal services such as prisons, probation and youth justice.

Each of these levels is addressed in the present book. While most chapters focus on the third level, that of criminal justice or correctional services, material is also included on long-term developmental prevention (Chapter 5), and on interventions to ensure that low-level aggression does not escalate into more serious problems (Chapter 6). Several other chapters identify a variety of levels on which crime reduction strategies could be targeted, for example through evolving models of the links between alcohol and violent crime (Chapter 8). Many chapters also shift emphasis away from work centred exclusively on individuals, to interventions that focus on family, community, and other systemic or contextual factors.

The book is divided into three sections. The first consolidates and reinforces what is known at present, and includes three new meta-analytic reviews published here for the first time. In the opening chapter, I summarise findings on the impact of two general approaches to crime prevention at the tertiary level, one based on deterrence or criminal sanctions, the other based on delivery of organised services including structured programmes. The chapter also incorporates an overview of a total of 30 large-scale reviews carried out in this field to date. In Chapters 2 and 3 Douglas Lipton, Frank Pearson, Charles Cleland and Dorline Yee outline two sets of findings from the CDATE project. This is the largest single systematic review yet undertaken of the field of offender rehabilitation, the findings of which have been available so far only as conference papers and are keenly awaited in published form. The CDATE researchers here present findings within two of the categories of intervention they examined: therapeutic communities and cognitive-behavioural programmes; their review of the latter is the largest yet published on this type of rehabilitation programme. Following this, Santiago Redondo, Julio Sánchez-Meca and Vicente Garrido, who have for some years been collating studies of intervention with offenders in European countries, describe the most recent findings from that research, and place it in the context of findings from other reviews. In a different domain, David Farrington and Brandon Welsh then examine the findings from evaluation of long-term developmental prevention programmes. These authors have also recently turned their attention in a methodical way to the question of cost-effectiveness of these and other services. While the number of studies reported in this area remains small, the authors have found benefit–cost ratios to be positive, demonstrating another return from this kind of work. As governments and other agencies are under constant pressure to provide the most cost-efficient modes of service, studies of this kind are increasingly important.

Part II of the book has a more specific focus on selected problem areas in work with offenders, and on certain kinds of intervention used within the field. Two chapters address work done primarily with younger offenders and pay close attention to family and other social influences. The late Arnold Goldstein made an unrivalled contribution to the understanding and reduction of aggressive behaviour through both individual and systemic approaches. In Chapter 6 he discusses the nature of low-level aggression, and reviews evidence concerning how to prevent its intensification into more serious forms, by integrative approaches particularly in schools and in the community. Following this Don Gordon reviews evidence concerning the importance of working with families of young offenders, and presents key guidelines for such engagements. In particular, he outlines work on programmes such

as *Functional Family Therapy* and *Parenting Wisely* and the accumulating evidence for their effectiveness.

In Chapter 8, Mary McMurran provides what, in my view, is the clearest formulation available to date of the seemingly impenetrable nexus of links between alcohol, aggression and violence. Development of an integrative model also yields valuable suggestions for intervention and the outcomes of some of these are reviewed. The following chapter, by Mary Russell, addresses some of the intricacies of the problem of domestic violence, placing it in a society-wide context in which a fundamental contributory factor resides in male attitudes towards women. Comparatively few studies have demonstrated the possibility of reducing spousal abuse, and the focus on attitude change is likely to be seen as an essential element of any successful approach to this issue. The final two chapters in this section turn attention to other groups of offenders who have been the subject of considerable research activity. Anthony Beech and Ruth Mann, leading researchers in the study of sexual offending, summarise key findings of the work that has been done to date. Equally important, they highlight the questions that should now be addressed for this specialised area of work to be able to advance further forward. Finally, Paul Mullen, internationally known for his psychiatric research on serious offences committed by people with severe mental disorders, reviews the evidence on the links between the two; and to the extent that it can be achieved in such a complex field, offers clarity where all too often confusion reigns.

Part III of the book turns our attention to aspects of practice and policy in criminal justice services. To act most effectively on the findings of treatment–outcome research, a central issue is the need to focus on individual assessment, particularly of static and dynamic risk factors (or "risks and needs"). Considerable mystification surrounds the meaning and implications of these terms and in Chapter 12 Clive Hollin presents a clearly written overview of the major themes in this area, the issues at stake, and the advantages and disadvantages of some of the most widely used instruments. The final two chapters of the book grasp the nettle of how best to disseminate and apply results concerning "what works" or is likely to work to reduce offender recidivism. In the adoption of evidence-based practice there are numerous unresolved problems over how to transfer the knowledge gained from research to everyday, practical settings while ensuring quality control of the work that is subsequently done. Such a task continues to pose major challenges and has sometimes given rise to heated debates.

In Chapter 13 Tom Ellis and Jane Winstone outline how findings from a survey of probation services were used to inform major departures in practice and policy in England and Wales towards the end of the 1990s. The scale and pace of these innovations have not been without their critics, and the authors express some reservations about the process and direction of the shift. These disputes underpin the assertion of a number of commentators on this area that the issue of programme implementation has been comparatively neglected in offender work. As Paul Gendreau, Claire Goggin, Francis Cullen and Mario Paparozzi show in the final chapter of the book, there are several kinds of gaps to be bridged in this respect. But there are also many other areas of knowledge on which it would be possible to draw when considering how to apply research findings in the "real world". Nevertheless, supposedly experienced expert advisers and development

consultants all too often fail to draw on them. To close the book in a highly entertaining intellectual *tour-de-force*, Professor Gendreau and his colleagues offer an indispensable insight and practical lessons to invigorate more effective pursuit of these goals.

I am very grateful to all the contributors to this volume for allotting the time and expending the effort needed to prepare chapters of such high quality. Trying to marshal an evidence base in a multifaceted field of research with close links to practice and public policy, intertwined with political and ethical controversies, is an extremely daunting task. I don't think anyone has either understated the complexities or overstated their conclusions. The final text in every case is a product of methodical work and careful and measured reflection. I also thank Lesley Valerio, of John Wiley and Sons, for patiently steering this work to its conclusion; and Michael Coombs, former commissioning editor, for giving original shape to the project. Finally, I thank my partner Sheila Vellacott, and our daughters Emma and Jenny, for your marathon reserves of tolerance, love and support.

January 2002 James McGuire

PART I

RESEARCH FINDINGS

Chapter 1

INTEGRATING FINDINGS FROM RESEARCH REVIEWS

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From an historical perspective, those who live in the world's prosperous industrial economies have never been as safe as they are today. Broadly speaking, infant mortality has dropped and life expectancies have risen to levels that would have been unimaginable to prior generations. Many of the common dangers that plagued and distressed our predecessors have been eradicated or are for the most part controlled within manageable limits. Yet these societies still feel conscious of a number of seemingly ever-present threats. One of the most frequently discussed and acutely felt is the fear of crime.

As would be expected, the frequency and severity of this problem varies considerably between different countries (Newman, Bouloukos & Cohen, 2001), as does the subjectively experienced fear of it (Mayhew & White, 1997). Considerable effort has been expended in searching for methods of reducing its prevalence, and in responding to those who are known to have broken the law in ways that will make them less likely to do so again.

This book is focused on that problem and on steadily accumulating evidence that solutions to it can be found. It is concerned with the increasingly firm consensus regarding the prospects of achieving reductions in rates of re-offending. It takes as its starting-point the finding that "... offender rehabilitation has been, can be and will be achieved. The principles underlying effective rehabilitation generalize across far too many intervention strategies and offender samples to be dismissed as trivial" (Gendreau & Ross, 1987, p. 395). However, both research and practice in this field have moved beyond the basic question of "what works" and the influences that may contribute to that. The focus is now upon more complex questions of what works when, where, and with whom; and why the various combinations of such elements form the patterns that they do.

The objective of the present chapter is to provide a context for the book as a whole by consolidating the current position regarding the evidence that has accumulated

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to date and its relationship to practical and policy considerations. To accomplish this, the chapter is divided into three sections. The first will consider what has been learned about punishment—which remains the dominant response, in almost all societies, to citizens who break the law. The second is to collate the findings of available large-scale reviews of research on constructive alternatives to it. The third is to illustrate selected aspects of that process in action, and to identify some of the key issues that arise in translating research findings into practical steps.

BEHAVIOUR CHANGE STRATEGIES

Behavioural psychologists have traditionally drawn a distinction between two broad strategies for altering patterns of behaviour, with particular reference to the reduction of some type of activity agreed to be socially undesirable; in this case, criminal recidivism (Goldiamond, 1974; and see McGuire, 2000a).

Eliminative strategies are based on the expectation that a problem behaviour will be suppressed by linking it to negative consequences for the individual. In behaviour modification, examples of such procedures include punishment, aversive conditioning, and response cost. In criminal justice decisions this is represented by deterrence-based sentences or punitive sanctions. They entail, for example, fines, and restriction of liberty to varying degrees including the use of custody, surveillance, shock incarceration or the imposition of demanding physical regimes. These are, of course, based on a long pedigree of ideas reaching back to the utilitarian philosophers of eighteenth-century Europe. Such ideas are assumed to enjoy wide popular support among the lay public, and to appeal to 'common sense' (see Chapter 14 by Paul Gendreau and his colleagues for a critique of the usefulness of that concept). There is thought to be a parallel between everyday experience of pain or discomfort and the use of judicial punishments.

Constructional strategies are based, by contrast, on the proposal that reduction of socially undesirable behaviour can be more effectively achieved through the building of new repertoires of action that effectively replace it. Rather than making the immediate consequences of an act unpleasant, in a constructional system effort is directed towards increasing the frequency of alternative behaviours by which an objective can be reached, and which may be incompatible with the problem behaviour. This can be accomplished through various behavioural methods, such as skills training, attitude change, education, employment and other forms of intervention.

Using this distinction as a framework, let us review the evidence concerning the outcomes of the respective approaches we have just defined.

DETERRENCE-BASED INTERVENTIONS

A declared intention underpinning the sentencing process is that it should alter criminal behaviour by attempting to manage its consequences. This is the core of what is variously called the *utilitarian* or *consequentialist* approach to crime and punishment (Walker, 1991). It is founded on the idea that legal sanctions will have an impact on those so dealt with.[1*]

[*] Notes are presented at the end of the chapter

Deterrence is conceptualized in a number of ways with an important distinction usually being made between its *specific* and *general* forms (Gibbs, 1986). The first refers to the influence of punishment on the individual made subject to it; the second to the wider impact this is assumed to have on others. Penologists also recognize that in considering the probable impact of punishments, their subjective or perceptual features are more important than their objectively defined characteristics. Stafford and Warr (1993) argued that the distinction between specific and general deterrence is difficult to sustain in other than broad and abstract terms. In everyday reality for most actual and potential offenders, there is likely to be a complex interplay between individual and general deterrent effects.

It is a traditional expectation of sentencing practices that they should deter individuals from committing crimes, but how well founded are such expectations? Several types of evidence are potentially relevant to the question of whether deterrent measures in criminal justice have an impact on recidivism.

Imprisonment and Crime Rates

At any one time, only a small fraction of those committing crimes in society is apprehended and punished. Yet the public visibility of this process is held to act as an indirect deterrent for the remainder of the population, including those likely to offend. If general deterrence operates to an extent that justifies its central position in society, there should be some association between the activity of the criminal justice system and the total amount of crime.

The broadest (though possibly weakest) kind of evidence pertaining to this comes from studies of the relationship between the number of persons incarcerated in a society and its general rate of recorded crime. For example, where opportunities have been available to monitor recorded levels of crime across periods when rates of incarceration were steadily changing, no clear relationship materializes (Zimring & Hawkins, 1994, 1995). This emerges particularly in studies of, and projections based upon, the increased use of incarceration in parts of the United States (Greenwood et al., 1996).

The deterrence hypothesis can also be tested at a specific or individual level. Do those offenders who are caught and punished respond to the experience by desisting from further criminal activity? Studies of the impact of imprisonment and other types of sanction, based on official statistics, do not show any unambiguous link between the severity of penalties (e.g. prison versus community sentences) and recidivism outcomes. Rates of reconviction following different types of court sentences, whether of a custodial or non-custodial nature, are remarkably similar (Kershaw, Goodman & White, 1999; Lloyd, Mair & Hough, 1994). Using specially developed prediction scales, follow-up studies of those dealt with in different ways by courts suggest that most offenders' likelihood of re-offending is little influenced by the sentences imposed on them. Judged at least by their subsequent behaviour, they appear impervious to the effects of criminal sanctions (McGuire, 2002).

Furthermore, recent research has failed to establish any relationship, in a direction that would be predicted by deterrence theory, between lengths of prison sentences and rates of recidivism. Gendreau, Goggin and Cullen (1999) have systematically reviewed this area in a report for the Solicitor General of Canada. The research group

reviewed 23 studies yielding 222 comparisons of groups of offenders (total sample size, 68 248) who spent more time (an average of 30 months) versus less time (an average of 17 months) in prison. The groups were similar on a series of five risk factors. Contrary to what would be predicted by deterrence theory, offenders who served longer sentences had slight increases in recidivism of 2–3%. There was a small positive correlation between sentence length and subsequent rates of re-conviction.

Capital Punishment

Research on the most extreme of sanctions—capital punishment—has failed to find that the availability of this option has any clear suppressant effect on rates of the most serious crimes. In a global survey conducted for the United Nations, Hood (1996) was able to compare separate countries, or their internal member states, which fell into a number of discrete categories according to their pattern of usage of capital punishment over a 40-year period. Some were *retentionist*, in that they retained the use of the sentence throughout that time; others were *abolitionist*. Some practised execution for part of the period, but then abolished it. Others, notably a number of American states, had a period when execution was not used (as a result of a US Supreme Court ruling) but following which its use was restored. Analysis of the data for rates of serious crimes such as homicide under these different jurisdictions yielded no evidence that capital punishment was associated with reductions in their occurrence. The expected effects of capital punishment in suppressing rates of homicide or violent crime have proved elusive, even when comparisons have been made between roughly equivalent localities differing only in their usage of it (Cheatwood, 1993), or where we might have expected a general deterrent effect to be amplified through the publicity given to executions (Stack, 1993).

Enhanced and Intermediate Punishments

During the 1970s, the proclaimed failure of education, training or psychotherapy to have their intended impact on criminal recidivism has been associated with a shift towards a more punitive stance in a number of legislatures. Particularly in the United States, from that decade onwards there was a progressive shift towards harsher punishments and "turning up the heat" on offenders (Byrne, Lurigio & Petersilia, 1992; Shichor & Sechrest, 1996). At an institutional level such sentences included the use of boot camps and shock incarceration. In the community, intensive supervision, surveillance, random drug testing, curfews and various permutations of each were tried and tested.

Primary studies and evaluations of 'enhanced' and intermediate punishment therefore flourished during the 1980s and 1990s as the usage of these types of sanction became more widespread. These are not controlled trials but studies of the criminal justice system at work in which sanctions were compared with standard punishments or 'business as usual' within it. Often, the participants in the harsher forms of treatment were selected on a voluntary basis. Analysis of outcomes in such studies is made difficult by the fact that, although severity of punishment was escalated, there were additional elements of education, counselling and other provisions in certain instances.

Several large-sample, multi-site studies were conducted of these types of intervention, including both community-based intensive surveillance projects (Petersilia & Turner, 1993) and institutionally-based sanctions (MacKenzie & Souryal, 1994). Mackenzie, Wilson and Kider (2001) have recently reported a review of 29 evaluative studies of correctional boot camps. The mean effect size expressed as an odds ratio was 1.02, "... indicating an almost equal odds of recidivating between the boot camps and comparison groups" (2001, p. 130). On the basis of their review these authors concluded that "... in our overall meta-analysis of recidivism, we found no differences between the boot camp and comparison samples ... the results of this systematic review and meta-analysis will be disappointing for many people ... boot camps by themselves have little to offer as far as moving offenders away from criminal activities" is concerned (pp. 137, 139). These findings paralleled those obtained earlier from British studies on the evaluation of 'short sharp shock' Detention Centre regimes (Thornton et al., 1984).

Other meta-analytic reviews subsuming criminal sanctions within a wide range of approaches to intervention have typically found deterrence-based programmes to have zero or negative effect sizes (Andrews et al., 1990; Lipsey, 1992, 1995). Specialized meta-analyses of the relevant literature on community-based intermediate punishments have also drawn negative conclusions regarding the impact of enhanced punishments (Gendreau et al., 2001; Gendreau et al., 1993).

Controlled Studies of Deterrence

A possibly more robust approach is to examine deterrence effects when these have been directly manipulated, and there are several published reviews of this field. Sherman (1988) has reviewed studies in which the effect of deterrence practices has been evaluated using randomized designs. Of 21 studies included in Sherman's review, 14 found no differences in recidivism between experimental and control samples. In five studies, increased severity of penalties resulted in increased recidivism. Only two studies showed any impact of punitive sanctions and in one of these studies this effect was observed only in some sub-samples and not across the experimental group as a whole.

The most comprehensive attempt to catalogue the potential impact of punitive sanctions as specific deterrents was undertaken by Weisburd, Sherman and Petrosino (1990) who compiled a *Registry* of randomized experiments. This provides details of a series of 68 studies published between 1951 and 1984 involving random allocation to different levels of criminal justice sanction. The definition of the word "sanction" was very broad and encompassed both added levels of intervention in terms of prison, probation or parole, as well as other experiments in which treatments were included in traditional sanctioning procedures. Of the 68 studies examined, 44 reported no differences between experimental and control samples, while only two showed apparently better outcomes for interventions that could be construed as genuinely more punitive. In neither case did the authors report statistical significance and the conclusions drawn were based solely on apparent trends in the data. In the remaining 22 experiments, rates of recidivism, parole violation or other similar outcomes favoured experimental over control groups. However, in all the latter studies, the increased "sanction" consisted of provision

of individual counselling, participation in group treatments, such as social skills training, or other forms of intervention that entailed sanctioning only in the respect that participation was non-voluntary.

Behavioural Research

Punishment-based techniques can be effective as a means of changing behaviour, though only providing certain conditions are met. A number of authors (e.g. Axelrod & Apsche 1983) have summarized the circumstances necessary to make punishment achieve its optimum effects. For it to work at all it should be unavoidable—i.e. there should be no escape from it. Its impact is a function of time and level of severity: the more speedily administered (celerity) and the higher the strength, the greater will be its impact. Finally, it is more likely to work when the individual can resort to alternative behaviours for pursuing a desired goal.

These conditions are however unlikely to be realized adequately in the complex, real-world environment of the criminal justice system, or in the lifestyle of many offenders. First, only a very small fraction of criminal behaviour results in punishment. For the United Kingdom, the available data suggests that the probability of being sent to prison for a crime is approximately 1 in 300 (Home Office, 1993). Second, when punitive sanctions are administered, this typically occurs weeks or months after the occurrence of the offence. Third, court sentences are graded on a scale of severity (the "tariff"), yet this bears only a fairly loose and uncertain relationship to the seriousness of crimes (Fitzmaurice & Pease, 1986). Finally, given the goal-directed nature of much crime and the limited personal resources and life circumstances of many persistent offenders, it is unlikely that many alternative courses of action are readily available to them. In all these respects, official punishment departs markedly from the required parameters of an effective "aversive conditioner".

This question was addressed systematically by Moffitt (1983) who examined whether findings from laboratory research can be extrapolated to the more loosely controlled circumstances of criminal justice services. Although Moffitt concluded that ". . . awareness of the principles of punishment may be of use to the deterrence theoretician" (1983, p. 154), the cumulative evidence merely attests to the difficulty of applying punishment in correctional settings in ways that approximate to those required for it to work.

Self-report Studies

Some investigators have focused on the reactions of individuals arrested and then punished for crimes, inviting them to comment on the extent to which their experience of the process may be likely to deter them from future offending. Other researchers have focused more closely on patterns in individuals' thinking in the period immediately prior to committing offences. Some of this work has been based on interviews with offenders during which they have been asked to describe their offending behaviour in some detail.

Klemke (1982) conducted a self-report survey of shoplifting by juveniles, but found little evidence of deterrence in preventing repeated acts of shoplifting by

this age group. While only a small proportion of those arrested was apprehended a second time, a far higher portion admitted to further acts of theft. Conversely, while a proportion may have been deterred, other factors such as increasing age and maturation may also have explained desistance.

Most individuals are presumably aware in general terms of the possibility of being apprehended and punished should they break the law. However, studies of several different types of offence indicate that such a prospect is not in the forefront of their thinking in the moments prior to embarking on a criminal act. This clearly applies in the case of offences that result from strong feelings of anger or aggression leading to acts of violence, and also where offending is associated with substance abuse. Findings from a number of studies based on interviews, or *in vivo* observational work, suggest that prior to committing an offence most individuals are preoccupied with the execution of the act rather than deliberation upon or fear of consequences should they be caught (Carroll & Weaver, 1986; Light, Nee & Ingham, 1993; Morrison & O'Donnell, 1994). They may be in difficulty for some other reasons, experiencing stressors, crises or dysphoric moods (Zamble & Quinsey, 1997). Hence, would-be law-breakers are not for the most part in what Walker (1991, p. 15) called "deterrable states of mind".

Dimensions of Deterrence Effects

In certain circumstances specific deterrence can be shown to achieve its objectives. This is more likely when individuals have a great deal to lose; or where the risks of being caught are perceived as higher, or uncertain, rather than merely minimal. Borack (1998) has described the impact of random drug testing in the US Navy. Under conditions in which a randomly selected 20% of personnel were subjected to urinalysis per 30-day period, a suppressant effect on drug use of 56.5% was obtained. Large-scale piloting of random breath testing in Australia has shown that it can lead to reduced rates of vehicle accidents (Henstridge, Homel & Mackay, 1997). Von Hirsch and colleagues (1999) have reviewed evidence that manipulation of the perceived uncertainty of punishment can have marginal deterrent effects. By contrast, evidence of achieving effects by varying the severity of punishment remains exceedingly weak.

Where individuals perceive themselves as having little or nothing to lose, deterrence is much less likely to have any discernible effect. In a study of the impact of criminal sanctions on homeless street youths, Baron and Kennedy (1998, p. 30) concluded that "... perceptions of sanctions differ depending upon one's position in the social structure". These very different studies illustrate the reverse poles of a continuum of deterrence effects. While for the naval personnel described by Borack (1998) there was a great deal at stake, the opposite was true for homeless, economically deprived young males.

Thus I am not arguing here that deterrence never "works". In all likelihood, within any sample of offenders there will be a proportion for whom it does. Even were that never the case, there are sound justifications for the restraint of persons who are doing serious or repeated harm to others or to themselves. However, given that the use of punishment is regarded as the cornerstone of criminal justice,

some fraction of the available evidence would surely provide clear indications of deterrent effects.

From a sociological perspective it may well be that punishment serves other symbolic functions in society, related to group cohesion, shared morality or civil governance. Perhaps it is important to avoid falling into what Garland has called "... the trap of thinking of it solely in crime-control terms" (1990, p. 20). Nevertheless some philosophers have argued that whether or not punishment can be justified is at least partly an empirical question (Farrell, 1985). If crime-control is an alleged purpose of punishment, then the paradox of its continued use alongside evidence that it fails to serve that purpose merits systematic inquiry. Honderich argued that punishment could be justified if it were, among other things, "economically preventive of offences"; or if it secured "... the reduction of distress at an economical rate" (1976, pp. 176, 181). Based on all the findings reviewed here, punishment does not reduce, and may well worsen, the problem which it is designed to cure. The conclusion reached by Gibbs (1986, p. 122) appears as valid today as when first written: "The bulk of findings indicate that offenders are not deterred when punished. More precisely, numerous researchers have reported either that recidivism is greater for offenders who have been punished the most severely or that there is no significant relation between punishment severity and recidivism." Reviewing evidence from controlled trials Sherman concurred: "The prevailing wisdom that punishment deters the future crimes of those punished is contradicted by the majority of the experimental evidence ... the most frequent finding from randomized experiments is that sanctions make no difference" (1988, p. 86).

META-ANALYSES OF OUTCOME STUDIES

Given the evidence just reviewed, it is unfortunate that when during the 1970s proclamations were made regarding the "failure of treatment", and that "nothing works", the main direction taken by criminal justice agencies was to resort to greater use of punishment. As many authors have since agreed, those conclusions were inaccurate. A large quantity of evidence has now accumulated showing that interventions can reduce offender recidivism. A crucial element in bringing about recognition of this has been the use of methods of statistical review or meta-analysis in detecting and consolidating trends across the findings of large numbers of primary outcome studies.

Some method of integrating the findings from different research studies was initially developed by Karl Pearson as long ago as 1904 (Glass, 1976). Glass, McGaw and Smith (1981) used the method to resolve the long-standing dispute over the hypothesized relationship between class size and the educational attainment of young people. It is now an article of British government policy to reduce the size of classes (or pupil–teacher ratio).[2] Systematic review, often employing meta-analytic techniques, has meanwhile become an engine of progress in many fields of inquiry. The largest expansion in such activity has been in the field of healthcare, where the international *Cochrane Collaboration* set standards for research synthesis and acted as a central register for ongoing reviews and as holder of databases of outcome studies. In a parallel development, the *Campbell Collaboration* has now been established

to work towards integration of research findings in the fields of educational, social and criminological interventions. In coming years there are likely to be significant advances made due to the activities if the *Campbell Crime and Justice Group* (Farrington & Petrosino, 2001).

Interpreting Outcome Studies and Large-scale Reviews

Where the results of research purportedly show that an intervention has been successful in reducing recidivism, there are many interpretative hurdles to be overcome before that conclusion can be endorsed. The following are some of the issues to be considered.

Research Design Limitations

The quality of research in outcome studies of criminal justice interventions has been much lamented. Factors that detract from what is conventionally accepted as sound experimental design include: the non-equivalence of comparison groups; the limited length of follow-up in many studies; small size of participant samples, furnishing limited statistical power and restricting statistical conclusion validity. The latter may be worsened by levels of attrition at post-test or follow-up phases. It has also been argued that positive outcomes are frequently a product of selection effects: offenders participating in programmes change mainly because they are motivated to do so (Simon, 1998). Furthermore, when attempting to review studies, general conclusions can be difficult to draw. Although cumulatively the number of primary studies in this field is fairly large, when meta-analysed the number of studies in any given category may be fairly small (Lösel, 2001).

To address these problems, in some reviews schemes have been developed for coding design quality in the analyses (e.g. Lipsey, 1992; Lipton et al., 1997; and see chapters 2–5 of the present book). Such a system has also been introduced in other studies using traditional narrative or tabulation approaches (MacKenzie, 1997).

One of the key advantages of meta-analysis of course is that the methodology allows account to be taken of many types of variations between primary studies. For example, the key outcome variable of recidivism has been defined in different ways using re-arrest rates, police contacts, parole violation, or re-conviction. By converting these divergences into a common effect-size metric, such variations can be absorbed in an integrative analysis.

Publication Bias

In the normal course of events, findings of research studies are communicated in academic journals, government reports, or other outlets. It is widely known that some biases operate within this and that studies obtaining nil effect sizes may be less likely to be submitted or accepted for publication than those with statistically significant effects. The two main remedies for this are first, to make every possible effort to locate unpublished studies; and to compute the file-drawer or fail-safe *n*, that is, the number of unpublished studies with zero or negative effect sizes that

would be needed to undermine an observed positive mean effect size in published research.

Internal versus External Validity

Another problem is the tension between internal and external validity in research studies. *Internal validity* refers to the extent to which we can justifiably infer that a relationship between two variables within a research study is causal; this implies that other potentially explanatory variables have been controlled. *External validity* by contrast refers to the extent to which any such relationship can be generalized across different populations, places or times (Cook & Campbell, 1979). In field research, these two requirements often compete against each other (Robson, 1993). The more tightly controlled are the variables allowing clear conclusions to be drawn within a study, the less likely it is that the findings can be generalized to other populations, times and settings.

Efficacy Versus Effectiveness

Even where studies satisfactorily meet research design criteria another difficulty arises. This is illustrated in disputes from an adjacent specialist field. In the early 1990s, the American Psychological Association instigated a major review of the effectiveness of psychological therapies for mental health problems. The findings of this review led to the publication of a series of proposals concerning *empirically supported treatments* (Chambless & Hollon, 1998; Dobson & Craig, 1998). In this field there has been a general advance from the finding that several types of therapy work (Lambert & Bergin, 1994) to a more exact delineation of "what works for whom" (Roth & Fonagy, 1996), or what works best for which types of problem (Department of Health, 2001; Nathan & Gorman, 1998). The obstacle remains, however that the strongest types of evidence judged in purely scientific terms, such as randomized controlled trials, are often the least suitable for informing practical settings (Persons, 1991; Persons & Silbersatz, 1998). Finely tuned research studies with specially selected samples are usually conducted in conditions quite unlike those that operate in everyday clinical settings.

This is sometimes known as the "efficacy" versus "effectiveness" debate. Findings that an intervention works based on a well-designed clinical trial (efficacy) tell us little or nothing about whether it will do so when tested in the more challenging location of the "revolving-door" hospital or neighbourhood clinic (effectiveness).

At the same time, with reference to outcome studies in criminal justice this problem may be less acute. By virtue (if that is what it may be called) of their reputedly poorer research designs, studies in this field may actually be more applicable in the overcrowded prison or hard-pressed probation office: because it is in these sites that many initial studies are actually carried out.

Lipsey (1999) has identified the same problem in discussing the difference between "demonstration" and "practical" programmes and has urged that there be much more research on the latter. Typically, evaluations of such programmes yield effect sizes lower than those found in the former. Well-researched interventions are usually allocated extra resources such as more intensively trained staff. Bridging

the gap to the ordinary, hectic, cluttered, real-world service setting poses a major outstanding problem in taking forward the evidence-based practice agenda.

Meta-analytic Reviews of Interventions with Offenders

Table 1.1 summarizes findings from a total of 30 meta-analytic reviews published between 1985 and 2001, in chronological order of appearance, showing the designated review field, the number of outcomes subsumed in each and the mean effect sizes so obtained.[3]

In several instances, the number of studies or research reports reviewed does not correspond to the number of outcome effects used to calculate the mean effect size. In some cases, published studies contained more than one investigation. For example, 10 of the 111 studies reviewed by Garrett (1985) examined the effects of more than one treatment, so producing a total of 121 effect size tests. Conversely, in other reviews not all studies that were located included recidivism as a dependent (outcome) variable. In the second review listed, by Gensheimer, Mayer, Gottschalk and Davidson (1986), 13 out of 44 studies that were found had no control sample and entailed pre-post comparisons only. Table 1.1 does not include the findings of Lipton and his colleagues, or by Redondo and his colleagues, reported in Chapters 2, 3 and 4 of the present book.

The majority of the meta-analyses, and the primary studies on which they are based, originate from the United States or Canada, and are focused on interventions with younger offenders (juveniles in the age range 14–17 and young adults aged 18–21). However, some reviews have dealt exclusively with European studies, and the largest review so far (the CDATE meta-analysis) includes studies from countries in many parts of the world.

The overwhelming majority of the primary studies deals with male offenders. In Lipsey's (1992, 1995) meta-analysis, only 3% of published studies focused exclusively on samples of female offenders. A recent review by Dowden and Andrews (1999a) was designed to counter-balance this and explore whether similar patterns of effects as found with men would emerge from studies with women offenders. While many primary studies report data concerning the proportions of offenders from different ethnic groups, the pattern of this is inconsistent and it is not often coded in meta-analyses.

General Findings

A first general finding shown across all meta-analyses is that the impact of "treatment" that can be defined in numerous ways is, on average, positive.[4] That is, it results in a reduction in recidivism in experimental relative to comparison samples. This contradicts the previously widely held expectation that little or nothing could be done to decrease offending behaviour among convicted offenders of whatever age (Hollin, 1999, 2001a; Lösel, 2001).

Secondly, however, the mean effect taken across a broad spectrum of treatment or intervention types is relatively modest. It is estimated on average to be

Table 1.1 A summary of meta-analytic reviews of tertiary prevention

Source	Number of computed outcomes (k)	Mean effect size (ES)	Descriptive information
Garrett (1985)	Total $k = 121$; 34 on recidivism	+0.18	Survey of 111 studies conducted in the period 1960–1984, describing residential treatment programmes for juvenile offenders. Cumulatively, 13 055 individuals were involved in the studies (mean age 15.8). Just under 50% of studies had random allocation or matched group designs. Reports effects of programmes on adjustment in institutions and community, in addition to recidivism outcomes. Largest ES for recidivism were obtained from life-skills and behavioural programmes.
Gensheimer et al. (1986)	31	+0.26 weighted mean ES	Reviewed 44 studies of diversion schemes for young offenders (mean age 14.6 years) published in the period 1967–1983; 43% entailed random allocation. Of these studies, 31 involved comparisons between experimental and control groups with a combined sample size of 10 210. There were highly significant relationships between numbers of contact hours and outcome effect sizes.
Mayer et al. (1986)	17	+0.33 weighted mean ES	A review of studies of the effects of interventions based on social learning principles published 1971–1982. A set of 34 studies yielded 39 effect sizes but only 17 were controlled experimental studies with recidivism as an outcome variable. Positive effect sizes were shown for behavioural, recidivism and attitude change measures.
Gottschalk et al. (1987a)	61	+0.22	Addressed the impact of community-based programmes for young offenders. From an initial pool of 643 research studies, 163 were extracted; 38% involved random assignment. For recidivism as an outcome variable cumulative sample size = 11 463. However, confidence intervals for most ES reported also included zero; authors interpreted positive findings cautiously.
Gottschalk et al. (1987b)	14	+0.25	Focused on behavioural programmes for young offenders. From the same database as employed in the preceding review, 25 studies were identified yielding 30 tests of treatment effects; 40% employed random assignment; however, only 14 addressed recidivism as the outcome variable.

Lösel & Koferl (1989)	16	+0.12	A study of the impact of German "socio-therapeutic" prison regimes designed for serious, recidivistic adult offenders. Patterns of effects were studied among 16 studies evaluating 11 prisons operating such regimes. A main focus of the review was the association between regime characteristics and recidivism outcomes.
Whitehead & Lab (1989)	50	+0.13	A review of juvenile offender treatment studies published in the period 1975–1984. The majority dealt with diversion programmes. A wide range of effect sizes was noted with few positive results, though strict limits were set concerning what was regarded as constituting a significant finding (ES > 0.2).
Andrews et al. (1990)	154	+0.10 $d = 0.53$ for "appropriate" treatment	Subjected a series of 154 outcome effects from studies with both adult and juvenile offenders to analysis. Studies were classified according to the extent to which the respective interventions adhered to principles of correctional intervention derived from earlier research. The pattern of findings supported the hypothesis that services which applied the principles of "human service" (risk, need and responsivity) produced larger effect sizes than those which did not.
Izzo & Ross (1990)	46	Cog > non-cog 2.5/1	Review designed to compare offender programmes with and without cognitive training elements. Rather than computing a mean effect size, the authors reported the ratio of relative effectiveness of the two types of programme.
Roberts & Camasso (1991)	46	Range +0.06 to 0.81 (No mean ES given)	Review of treatment programmes for young offenders published between 1980 and 1990. The mean age of the samples studied was 15.1 years; some interventions were targeted on offenders in the 9–12 age range and entailed primary prevention.
Lipsey (1992, 1995)	397	+0.10	Largest published meta-analytic review encompassing 443 studies of treatment of offenders in the age range 12–21; 65% of the studies obtained positive ES findings. Significant positive ES obtained for multi-modal, behavioural and skill-oriented programmes; negative effect sizes for deterrence-based interventions; conflicting evidence on employment-focused programmes dependent on agency setting.

continues overleaf

Table 1.1 (*continued*)

Source:	Number of computed outcomes (k)	Mean effect size (ES)	Descriptive information
Hall (1995)	12	+0.12	Integrated findings from studies of the treatment of sexual offenders, both adolescent and adult. For this meta-analysis only 12 studies were located, with a total sample size of 1313. There was a wide range of types of sexual offence. The mean effect size was +0.12. The author calculated the "file drawer" sample size as 88.
Wells-Parker et al. (1995)	215	8%–9%	Remedial interventions with offenders convicted of driving while intoxicated. Multi-modal interventions combining education, psychotherapy or counselling and probation follow-up had the most positive effects in reducing drink–drive recidivism and alcohol-related accidents. Some single modalities used alone had negative effect sizes (psychotherapy and AA).
Gendreau & Goggin (1996)	138	0.00	Meta-analytic review focused exclusively on effects of deterrence-related procedures. Integrated results from 138 outcome studies focused on intermediate punishment or "smart sentencing" (use of enhanced punishment, surveillance, random drug-testing, intensive probation supervision and other criminal sanctions or court-mandated procedures).
Pearson, Lipton & Cleland (1997)	822	No mean ES given	Unpublished report given as a conference presentation. Part of a larger review known as the Correctional Drug Abuse Treatment Effectiveness (CDATE) project. Final project includes 1500 studies (see Lipton et al., Chapters 2 and 3 of the present volume).
Redondo, Garrido & Sánchez-Meca (1997)	57	+0.12	Integrative survey of studies conducted in European countries between 1980 and 1993; 49 studies were included, based on a total sample of 7728 participants. Mean ES for behavioural (0.23) and cognitive-behavioural (0.26) programmes were each double that for programmes as a whole.

Lipsey & Wilson (1998)	200	Institutions: +0.10 Community: +0.14	Studies of treatment of serious, persistent young offenders (age range 14–17); located 117 studies of community-based interventions; 83 based in institutions. Approximately half of the studies were randomized controlled trials. ES were computed in a number of ways: findings shown are "observed" ES. Numerous interaction effects were noted in the data. Largest and most consistent effects across settings were obtained with interpersonal skills training; for institutions, teaching family homes; for community, structured individual counselling and behavioural programmes.
Alexander (1999)	79	+0.10	A review of outcome studies of interventions with sex offenders published between 1943 and 1996; cumulative sample size 10 988. The results were analysed by age, offence type, setting, and treatment type. Included range of method/design quality. Recidivism rates generally low; positive treatment effects found for most categories of sexual offences against children but no differences observed for rapists.
Dowden & Andrews (1999a)	24	Not applicable	A review to test the hypothesis that principles of "human service" (risk, need and responsivity), which have emerged from meta-analyses in studies of male offenders, applied to women offenders also. The authors located 6 studies yielding 45 tests, 24 on samples composed exclusively of female offenders, confirming that similar trends appeared for female as for male offender samples.
Dowden & Andrews (1999b)	229	+0.09	A study of outcomes of interventions with young offenders; 134 primary studies; effect sizes ranged from −0.43 to +0.83. Supplementary analyses reported effect sizes associated with different treatment targets, distinguished criminogenic and non-criminogenic targets and tested hypotheses regarding "human service principles" in design of services.
Gallagher et al. (1999)	25	$d = +0.43$	Review of treatment of sex offenders; 22 studies. Most used cognitive-behavioural methods; only two employed random allocation; most reported positive ESs. Mixed results obtained for chemical/hormonal treatments; largest observed ES in a single study (for surgical castration) thought to be compounded by motivational factors.

continues overleaf

Table 1.1 (*continued*)

Source:	Number of computed outcomes (k)	Mean effect size (ES)	Descriptive information
Polizzi, MacKenzie & Hickman (1999)	13	No mean ES given: ES range from −0.23 to +0.70	A review of 21 studies of treatment of sex offenders dealing with interventions in both prison and community settings. Only 13 of the studies met acceptable design criteria; 50% showed effect sizes in favour of treatment. Four of the six studies showing positive treatment effects used cognitive-behavioural methods. Effect sizes were larger in community settings. Research did not allow any conclusions to be drawn about specific types of sexual offending.
Redondo, Sánchez-Meca & Garrido (1999)	32	$d = +0.24$ $r = +0.12$	Second meta-analysis of European programmes focused solely on recidivism. Highest ES obtained were for behavioural and cognitive-behavioural programmes; ES were higher with juvenile offenders. Largest ES noted were with violent offenders and larger effect sizes for community than institutional programmes.
Dowden & Andrews (2000)	52	+0.07	A review of studies focused on reduction of violent recidivism; 34 studies were located yielding 52 tests; 30% of the comparisons were based on young offender samples. CI for the mean ES does not include zero; mean ES for deterrence-based interventions just below zero; for "human service interventions", mean ES +0.19. Highly significant correlation (0.69) found between ES and number of criminogenic needs targeted.
Petrosino et al. (2000)	9	−0.01	Review of randomized experimental evaluations of "scared straight" programmes, including visits by youth to prisons, meetings with adult prisoners, education and confrontational sessions in institutions. Conclusion drawn that their net effects were either negligible or potentially harmful.
Wilson, Gallagher & MacKenzie (2000)	53	Odds ratio: 1.52	Meta-analysis of 33 studies of educational, vocational training and allied programmes for adult offenders. Highest effect sizes for post-secondary education programmes (OR 1.74), corresponding to respective recidivism rates for comparison and intervention groups of 50% and 37%; lowest for a mixed group of multi-component studies (1.33). Differences due to methodological variables were non-significant.

Wilson & Lipsey (2000)	22	+0.18	Review of 28 studies of "wilderness challenge" or outdoor-pursuit programmes for young offenders. Of 60 effect size tests, 22 focused on recidivism. Positive effects sizes were associated solely with intensity of physical exercise and inclusion of distinct therapeutic components.
Gendreau et al. (2001)	140	0.00	Comparison between effect sizes for institutional and community sanctions and respective control samples. Total sample $n = 53\,614$. Reviewed studies of intensive supervision, arrest, fines, restitution, boot camps, scared straight, drug testing and electronic monitoring. Only fines yielded a small effect in reduced recidivism. All other interventions were associated with zero effects or marginally increased recidivism.
Lipsey, Chapman & Landenberger (2001)	14	Odds ratio: 0.66	Review of cognitive-behavioural programmes: only studies with relatively strong randomised (8) or quasi-experimental (6) designs were included. The mean effect size represents a recidivism rate for participants approximately two-thirds of that for control samples. Larger effect sizes were found for "demonstration" than for "practical" programmes.
MacKenzie, Wilson & Kider (2001)	44	Odds ratio: 1.02	Review of evaluations of correctional boot camps. Applied detailed assessment of design quality, 19 (43%) studies were judged to be methodologically solid. Wide range of effect sizes noted; 9 studies favoured boot camps, 8 favoured comparison conditions, 17 obtained no difference. The only factor associated with the positive effect sizes was presence of an after-care component for adult programmes.

approximately 9 or 10 percentage points (Lösel, 1995). But note that this is across all types of intervention, including criminal sanctions that have been shown to have zero or negative effect sizes. If these studies were excluded from the overall calculation, the mean effect for remaining treatments would be higher than observed.

Given its apparently unexceptional overall scale the question inevitably arises as to whether this finding has any meaningful policy significance. Rosenthal (1994) among other authors has drawn attention to an important distinction between *statistical* and *practical* significance. The mean effect sizes obtained, while typically small to mid-range, compare reasonably well with those found in other fields. Indeed some healthcare interventions that are generally regarded as producing worthwhile benefits have lower mean effect sizes. Others with mean effects only marginally higher are the object of considerable public investment (Lipsey & Wilson, 1993; McGuire, 2002).

Most reviewers however regard the average effect size as a fairly misleading figure in conveying the impact of interventions with offenders. All studies have found substantial variability in outcomes depending on a range of other factors, and most researchers are agreed that this variability is of much greater interest than the average finding in itself. There are, of course, several sources of the variation observed in outcome effects, including the type of design used in evaluation studies (Lösel, 2001).

One principal implication of this is that there is no single solution to the problem of offending behaviour or to the attempt to help individuals to reduce its frequency or severity. No single approach can be designated a panacea or "magic bullet". Methods that work well in one context, with one selected sample, may work less well in others. Decisions regarding the approach best adopted in a given setting for a given group therefore need to take a number of factors into account.

Bearing this caveat in mind, there is nevertheless a general accord among the reviews on a number of key points. The findings of the fairly large number of outcome studies now available are sufficiently consistent and robust for certain conclusions to be permissible regarding what is likely to contribute to effectiveness.

Ineffective Approaches

We saw earlier that the use of deterrence-based interventions has most frequently been shown to have non-existent or negative effects on subsequent recidivism. There are also several other approaches that receive little or no support as effective interventions from the evaluation research that is available.

They include vocational training activities without associated links to real prospects of employment, which are also associated with increased recidivism (Lipsey, 1992, 1995) though the number of studies relevant to this finding is fairly small. There are conflicting results for wilderness or outdoor challenge programmes which have yielded mainly weak or absent effects, unless they include high-quality training or therapeutic elements (Lipsey, 1992, 1995; Lipsey & Wilson, 1998; Wilson & Lipsey, 2000). The average outcome for so-called "scared straight" programmes is a slight increase in recidivism (Gendreau et al., 2001) and some authors have declared them to be potentially damaging (Petrosino, Turpin-Petrosino &