



## What works in reducing offending of the problem drug users?

© Zoryna O'Donnell 2006

Criminological, sociological and psychological perspectives represent three main disciplinary approaches to the study of crime and crime prevention. They create a theoretical framework for understanding not only what works in reducing offending by problem drug users, but also why it works.

A General Theory of Crime, presented by Gottfredson and Hirschi (1990) combines classical (rational choice) theory of crime with a positivists (control) theory of criminality. Gottfredson and Hirschi introduced the idea of low self-control as a conception of criminality. They argued that the manifestation of low self-control is not confined to criminal acts, but is also casually implicated in many 'analogous' acts, such as promiscuity and substances misuse (Department of Criminology, 2004a: 2-23). Elliot, Ageton and Canter (1979) developed a concept that expanded and synthesised strain, social learning and control perspectives into a simple explanatory paradigm. They assumed that individuals have different early socialisation experiences, leading to variable degrees of commitment to, and integration into, the conventional social order: to strong and weak social bonds. Elliot, Ageton and Canter (1979) argued that these initial bonds can be strengthened and reinforced or attenuated by subsequent experiences of individuals (Department of Criminology, 2004a: 2-17). A synthesis of the above theories helps to understand the offender-oriented approach to crime prevention.

It is important to note that the offender-oriented prevention has been the predominant focus of crime prevention since at least the inception of modern criminal justice. (Department of Criminology, 2004b:1-9). Ideas of social crime prevention and the rehabilitation of offenders were outlined in 1925 in a special Manifesto for Crime Prevention (Burt, 1925:584-7). A preoccupation with the reduction in offending as the means to prevent crime was the hallmark of Burt's rehabilitative ideal, the psychological positivist beliefs that regarded intensive treatment and re-training of individual criminals as the most appropriate approach to preventing crime. As Walklate (1996) points out, such a preventive/rehabilitation approach takes the view that offenders are educable, trainable and supervisable, and through these processes those known to be criminal, or thought to be at risk of offending, can be targeted and redirected in their behaviour. Existing UK studies give enough evidence to derive conclusions about effective measures in reducing re-offending rates amongst problem drug users.

The Enhanced Arrest Referral Scheme and the new Criminal Justice Intervention Programme (Drugs) (CJIP) intend to make the most of opportunities provided by the criminal justice system to identify (through drug testing) and engage drug-misusing offenders into treatment, and thereby reduce the likelihood of criminal activity. A study conducted by the Matrix

Research and Consultancy and NACRO (2004) revealed that drug testing in the criminal justice system increases the number of acceptances by detainees to see arrest referral workers and that positive tests increase treatment by entry rates. It also found that for both Drug Abstinence Orders (DAOs)/Drug Abstinence Requirements (DARs) and on-license testing (including Notices of Supervision (NoS), there was some evidence to suggest that the interventions resulted in increased participation in treatment, reduced drug consumption and reduced offending (ditto, 2004:103). Interestingly, the study also revealed that at an area level, whilst in eight of the nine sites trigger offences (include acquisitive crimes) had reduced by a greater degree in the pilot area than the comparison area, non-trigger offences had also reduced in seven of the nine pilot areas. However, the authors of the report warned that it is impossible from the crude comparison to attribute the relative reduction in trigger offence rates in the pilot areas (compared with comparison areas) to the introduction of drug testing. Other explanatory factors, for example targeted policing operations, may have affected these ratios pre- and post-testing (ditto, 2004:101).

Drug Treatment and Testing Orders (DDTOs) were introduced as a new community sentence under the Crime and Disorder Act 1998 in response to the growing evidence of links between problem drug use and persistent acquisitive offending. Hough et al. (2003:1) found that the overall reconviction rates of those on the orders were high. However, they also discovered statistically significant differences in reconviction rates between those whose orders were revoked and those who completed their orders, even though individuals in both groups had a long history of persistent offending. Individuals who completed their orders reduced their annual conviction rate to levels well below those of the previous five years.

Bullock (2003a) pointed out the following important findings of the recent Criminology Survey: Drugs Follow-up study. Firstly, the study found that both reconviction and re-offending rates were lower for those respondents abstaining from drugs since release than for those using drugs. Secondly, it proved that the rate of re-offending is also related to the rate of post-release drug use. Thirdly, it is revealed that while occasional drug use is widespread in custody, frequency rates are relatively low and few prisoners maintain problematic levels of use. And finally, the study concluded that imprisonment does appear to reduce drug use while inmates are in custody, and post-release rates of drug use among short-sentence prisoners seem to be lower than pre-prison levels as the result of the progress made by the Prison Service in terms of treatment and testing over the last seven years (Bullock, 2003a:43-46). Similar findings were noted by Mason et al. (2003), Liriano (2002), Martin and Player (2000) and Player and Martin (1996).

Bullock (2003b) also pointed out that three important issues recur particularly frequently throughout literature on the effectiveness of drug treatment in prison: client matching, throughcare and time spent in treatment. The severity of drug-users' problems will vary (Player and Martin, 1996), as will the relationship between drug use and offending (Stoever and von Ossietzky, 1998). The recognition that drug abuse often stems from a combination of factors reinforces the argument that services need to be responsive to the needs of individual offenders. Numerous studies (Wilkinson et al., 2003; Inciardi et al., 1997; Sherman, 1997; NIDA, 1999; Office of National Drug Control Policy, 1996; Lipton et al., 1998) have found a strong relationship between the length of treatment and outcome measures: the longer a prisoner spends in treatment, the less chance he or she has of relapsing or re-offending.

Lipton (1998:11) argued that 'the effectiveness of drug abuse treatment is specifically related to the length of time an individual remains in drug abuse treatment, regardless of the type of treatment.'

Academic literature contains a lot of evidence to support the need for adequate throughcare in prison and aftercare in the community (Inciardi et al., 1997; NIDA, 1999; Office of National Drug Control Policy, 1996; Stoever and von Ossietzky, 1998). The evaluations of programmes with aftercare components showed distinctly better results for prisoners completing aftercare treatment (Martin et al., 2003; Centre for Substance Abuse Treatment (CSAT), 1998; Bullock, 2003b) and advocate a greater emphasis on the importance of community treatment to the extent, that institutional treatment should essentially be a 'stepping stone', or preparation for, treatment on the outside. The good-quality aftercare is particularly important for those offenders who committed acquisitive crime. The Home Office (2003, T 4.5) data shows that, nationally, little more than a third of all recently imprisoned offenders have been sentenced for acquisitive crimes often associated with drug use (such as burglary, theft or handling). However, almost three-quarters of male prisoners sentenced for these crimes (and almost nine out of ten female equivalents) are serving relatively short sentences of less than a year (Home Office, 2003, Fig 4.9). Their actual time in custody is even shorter. As Wilkinson et al. (2003:133) pointed out, in this situation, often the most that might be achievable in a prison setting would be to encourage drug-users to recognise their problems and to seek help on release.

According to Bullock (2003b), the literature on the effectiveness of drug treatment seems to be quite clear that substance-involved women and juvenile offenders do have distinct needs. Holloway et al. (2005), Peugh and Belenko (1999) and Ettore (1992 and 1994) suggested that while male and female substance users share many of the same features – such as dependence, poor health, mental illness, employment problems and poor support networks – the manifestation and severity of these are often distinctly different (often more severe) for women. In addition, economic problems are compounded for women by the greater need to provide for dependent children. Peugh and Belenko (1999:33) argued, that 'treatment for women will be the most effective if it seeks to address the financial and practical needs of these incarcerated mothers by offering family services as well as transition and aftercare programmes.'

Dembo et al. (1993), Hoffman et al. (2001), Liriano and Ramsay (2003) and Martin et al. (2003) pointed out, that juvenile substance-abusers differ from adults in a variety of ways. The authors also found that substance abuse among juveniles is often related to a range of factors not always associated with adult abuse (such as physical abuse, sexual abuse, emotional/psychological problems and educational difficulties). Therefore, the effective treatment for juveniles should encompass a range of interventions that address the problems in a holistic way rather than focusing on a narrow interpretation of treatment needs alone.

Recent studies (for example, Holloway et al., 2005; Liriano and Ramsay, 2003; Borrill et al., 2003; Patel, 1998; Gordon et al., 2000 and Ramsay, 2003) highlighted several ethnic differences in drug use which need to be taken into account in planning and delivering treatment programmes. Interestingly, Gordon et al. (2000) found that non-white prisoners were more responsive to treatment than white respondents. White subjects allocated to a

residential programme were shown to reduce offending by 19 per cent following treatment compared to 55 per cent reduction among non-white respondents. However, as Patel (1998:15) pointed out, very few mainstream or even specialist drug services have managed to attract or work with minority ethnic groups of drug users despite the fact that they are over-represented within criminal justice system and psychiatric settings (in many cases related to drugs).

A recent systematic review of the effectiveness of the criminal justice and treatment programme in reducing drug-related crime (Holloway et al., 2005) revealed positive and encouraging results. It found strong evidence to suggest that most drug interventions work in reducing crime. However, some interventions are more effective than others. It was also discovered that there is some evidence that the programme outcome is influenced by the characteristics of the subject. While the interventions were effective for all groups, younger people were more responsive than older ones; males were responding better than females, and in one study, non-whites were more responsive than whites. The meta-analysis results for all evaluation studies combined, showed that high intensity programmes were 50 per cent more likely to bring about a reduction in criminal behaviour than low intensity programmes. Thus, intensive programmes are more likely than non-intensive programmes to reduce crime. One of the studies analysed by Holloway et al. (2005) found that crime was reduced by greater amounts (90 per cent decrease) in cases of maximum aftercare compared with minimum aftercare (57 per cent).

Despite generally positive findings, it is premature for drug treatment to be regarded as a particular solution for reducing crime at the societal level. Hedderman and Sugg (1997) argued that the use of cognitive-behavioural methods in programmes of rehabilitation of offenders which included training in life skills and addressed other social factors, show the most positive results with both juvenile and adult offenders.

The first large-scale British study of the role of social factors in reconviction following a community sentence was conducted by Chris May in 1999. He examined the average reconviction rate for each possible combination of the five main social variables (accommodation, employment, alcohol, drugs and financial problems). The clearest pattern that emerged was the relationship between re-conviction and drug problems. Drugs featured in each of 11 combinations with the highest reconviction rates, and in none of the ten combinations with the lowest rates. Also, this analysis showed clearly that the reconviction rate rises with increased numbers of problems (May, 1999:21). Two offences – burglary and theft and handling – were associated with generally higher reconviction rates than other offences. May argued that drug misuse in interaction with employment problems and other social factors is consistent with the possibility that drug users commit crime to finance their habit. May (1999:X) suggested that probation work with offenders in tackling problems chiefly with drugs, but also with employment, accommodation and finances, could play a significant role in reducing offending.

The problem drug-using offenders face a significant change in their lives when they make a decision to break the drugs-crime circle. Without intensive support on both professional and personal levels, the offenders might find it extremely difficult to maintain their commitment to the change. For example, Graham and Bowling (1995) and Warr (1998) emphasised the

importance of 'structured role stability' that emerges across various life domains, such as marriage, job and residence. They found that individuals who desisted from crime shared a daily routine that provided both structure and meaningful activity. According to Cullen (1994) and Hirschi (1969), the routine activities of work and family life provided much needed social support and emotional attachment. Vaillant (1988) and Vaillant and Milofsky (1982) found that external interventions that re-structure a drug addict's life in the community were often associated with sustained abstinence. The main factors are compulsory supervision, finding a substitute dependence to compete with drug consumption, obtaining new social supports, and membership in an inspirational group or discovery of sustained hope or aspiration. Many studies (for example, Andrews et al., 1990; Gendreau et al., 1994; Bonta, 1996) revealed that programmes that address dynamic attributes of offenders and their circumstances (such as anti-social attitudes, involvement with delinquent peers, employment status) that can change during or after the treatment process appear to be more successful than programmes that focus on static factors or background characteristics.

It can be argued that neither custody nor treatment alone is able to stop drug use and related offending. Identifying and addressing the problems and underlying causes that lead people to drug use and offending seems to be the best way forward. For example, Roberts (2003) noted that although there is clear evidence that treatment programmes can greatly reduce the levels of drug use and related offending, treatment alone has its limitations. 'If drug misuse is not a 'law and order' matter, nor is it simply a medical problem, at least not in the narrow sense of that term. This is because problem drug use – and particularly the crime associated with it – typically, if not invariably, has as much to do with poverty as with pharmacology. ... These sorts of problems are not responsive to methadone treatment or other medical interventions' (ditto, 2003:8-9).

The findings of recent research also emphasise the importance of individualised treatment and rehabilitation programmes that take into account age, gender, ethnic background and other issues, that influence this particular individual's involvement in drug use and crime. For example, Laub and Sampson (2001:48-49), argued that there is a need to examine individual motivation and the social context in which individuals are embedded because the process of desistance operates simultaneously at different levels (individual, situational, and community) and across different contextual environments (for example, family or work). Sullivan (1989) and Laub and Sampson (2001) argued that group processes and structural determinants such as race and ethnicity, social class and neighbourhood also should be considered in the management of the desistance process.

All of this tends to support a conclusion of Laub and Sampson (2001) that successful cessation from drug use and crime occurs when the proximate causes of drug use and crime are affected. Furthermore, it can be argued that the findings of modern research tend to support a common cause explanatory model of the relationship between problem drug use and acquisitive crime, which was evidenced by the works of White (1990), White et al. (1993), Fagan (1990), Gorman and White (1995), Ensminger et al. (1997) and Skogan (1990). However, it is fair to say that the exact nature of this relationship still remains unclear.

It can also be argued that understanding of addiction is crucial for an exploration of the nature of the relationship between drugs and crime, and for developing effective crime reduction

measures. However, an adequate understanding of addiction is yet to be achieved, and that it might reveal new links between drugs and crime. The numerous misconceptions and myths surrounding drugs and crime in society (on both, grass root and governmental/ institutional levels), in addition to a lack of adequate understanding of the problem, do not allow drug-related acquisitive crimes to be dealt with effectively. Worrall and Hoy (2005) pointed out that communities often lack the resources and the will to engage in supporting desistance from drugs and crime, preferring to remain merely 'punishing communities'. Bottoms (1995) suggested, that an effective 'offender management' requires the offender management agencies to re-engage with community education and community engagement and to seek ways and means, at the local level and at the national level, to challenge populist punitiveness and to offer more progressive alternatives.

The findings of the research revised in this article provide some strong evidence of inconsistency and a varying effectiveness of treatment in reducing drug use and criminal behaviour across different groups of individuals. All of this tends to suggest a need for caution in making generalisation about the value of treatment as a crime-control tool. Instead, it is recommended that a treatment-focused approach in tackling crime has to be routinely complemented by a range of well-supervised community-based non-treatment interventions that take account of the individual needs of problem drug-using offenders. This will better address the cluster of common causes in drugs-crime association and result in a reduction in both drug use and crimes ('crime reduction measures' concept in the results of the research). Such approach will ensure effective management of problem drug-using offenders all the way through the three basic stages of behaviour change – motivation and commitment, initial behaviour change, and maintenance of change.

## REFERENCES

**Andrews, D.A., Bonta, J. and Hoge, R.D.** (1990) 'Classification for Effective Rehabilitation: Rediscovering Psychology'. *Criminal Justice and Behaviour* 17: 19-52

**Bonta, J.** (1996) 'Risk-Needs Assessment and Treatment' in Harland, A. (ed) *Choosing Correctional Options That Work*. Thousand Oaks, California: Sage

**Borrill, J., Maden A., Martin, A., Weaver, T., Stimson, G., Farrell, M., Barnes, T., Burnett, R., Miller, S. and Briggs, D.** (2003) 'Substance misuse among white and black/mixed race female prisoners' in Ramsay, M. (ed) *Prisoners' drug use and treatment: seven research studies*. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Bottoms, A.** (1995) 'The Philosophy and Politics of Punishment and Sentencing', in Clarkson, C. and Modgan, R. (eds) *The Politics of Sentencing Reform*. Oxford: Oxford University Press.

**Bullock, T.** (2003a) 'Changing levels of drug use before, during and after imprisonment' in Ramsay, M. (ed) *Prisoners' drug use and treatment: seven research studies*. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Bullock, T.** (2003b) 'Key findings from the literature on the effectiveness of drug treatment in prison' in Ramsay, M. (ed) Prisoners' drug use and treatment: seven research studies. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Burt, C.** (1925) *The Young Delinquent*, New York: Appleton

**Centre for Substance Abuse Treatment (CSAT)** (1998) Treatment Improvement Protocols (TIPs): Continuity of Offender Treatment for Substance Use Disorders from Institution to Community. As published on the Internet at <http://www.samhsa.gov/centres/csat/csat.html>

**Cullen, F.** (1994) 'Social Support as an Organising Concept for Criminology: Presidential Address to the Academy of Criminal Justice Sciences' *Justice Quarterly* 11:527-59

**Dembo, R., Williams, L. and Schmeidler, J.** (1993) 'Addressing the problems of Substance Abuse in Juvenile Corrections'. In Inciardi, J.A. *Drug Treatment and Criminal Justice*. London: Sage

**Department of Criminology** (2004a) MSc in Community Safety Module 1, Leicester: Department of Criminology

**Department of Criminology** (2004b) MSc in Community Safety Module 2, Leicester: Department of Criminology

**Elliot, D., Ageton, S. and Canter, J.** (1979) 'An integrated Theoretical Perspective on Delinquent behaviour', *Journal of Research in Crime and delinquency*, 16:126-149.

**Ensminger, M.E., Anthony, J.C. and McCord, J.** (1997) 'The inner city and drug use: Initial findings from epidemiological study'. *Drug and Alcohol Dependence* 48 (December): 175-184.

**Ettorre, E.** (1992) *Women and Substance Use*. New Brunswick, New Jersey: Rutgers University Press.

**Ettorre, E.** (1994) What Can She Depend On? Substance Use and Women's Health. In: Wilkinson, S. and Kitzinger, C. (eds.) *Women and Health: Feminist Perspectives*. London: Taylor and Francis

**Fagan, J.** (1990) 'Intoxication and Aggression', in Tonry, M. and Wilson, J.Q. (eds.) *Drugs and Crime: Crime and Justice Volume 13*. Chicago: University of Chicago Press.

**Gendreau, P., Cullen, F. and Bonta, J.** (1994) Intensive Rehabilitation Supervision: The Next Generation in Community Corrections? *Federal Probation* 58:72-78

**Gordon, J., Moriarty, L. and Grant, P.** (2000) 'The impact of a Juvenile Residential Treatment Center on Minority Offenders', *Journal of Criminal Justice*, 16(2), 194-208

**Gorman, D.M. and White, H.R.** (1995) 'You can choose your friends, but do they choose

your crime? Implications of differential association theories for crime prevention policy'. In Barlow. H. (Ed.) Criminology and public policy: Putting theory to work. Boulder, Colorado: Westview Press.

**Gottfredson, M. and Hirschi, T.** (1990) A General Theory of Crime, Stanford, CA: Stanford University Press.

**Graham, J. and Bowling, B.** (1995) Young People and Crime. Research Study 145. London: Home Office

**Hedderman, C. and Sugg, D.** (1997) Changing offenders' attitudes and behaviour: what works? Home Office Research Study 171. Home Office Research and Statistics Directorate. London: Home Office

**Hirschi, T.** (1969) Causes of Delinquency. Berkeley: University of California Press

**Hoffman, N.G., Estroff, T.W and Wallace, S.D.** (2001) 'Co-occurring disorders among adolescent treatment populations'. The Dual Network, 2(1), 10-13

**Holloway, K., Bennet, T. and Farrington, D.** (2005) The effectiveness of criminal justice and treatment programmes in reducing drug-related crime: a systematic review. Home Office Online Report 26/05. As published on the Internet at <http://www.homeoffice.gov.uk/rds>

**Home Office** (2003) Prison Statistics England and Wales 2001. London: Home Office

**Hough, M., Clancy, A., McSweeney, T. and Turnbull, P.J.** (2003) The Impact of Drug Treatment and Testing Orders on offending: two-year reconviction results. Findings 184. Home Office Research, development and Statistics Directorate. London: Home Office

**Inciardi, J., Martin, S.S., Butzin, C.A., Hooper, R.M. and Harrison, L.D.** (1997) 'An effective model of prison-based treatment for drug-involved offenders'. Journal of Drug Issues, 27 (2)

**Laub, J.H. and Sampson, R.F.** (2001) Understanding Desistance from Crime. Chicago: University of Chicago Press

**Lipton, D.S.** (1998) 'Treatment for Drug Abusing Offenders During Correctional Supervision: A Nation-wide Overview'. Journal of Offender Rehabilitation, 26 (3/4)

**Lipton, D., Pearson, F., Cleland, C. and Yee, D.** (1998) How Do Cognitive Skills Training Programmes for Offenders Compare with Other Modalities: A Meta-Analytic perspective. Preliminary findings for the Study of Correctional Drug Abuse Treatment Effectiveness, CDAT. Presented at the Stop and Think Conference, HMP York, UK.

**Liriano, S.** (2002) Reconviction Analysis of the RAPt Drug Treatment programme. Home Office RDS Internal report, 1/2

**Liriano, S. and Ramsay, M.** (2003) 'Prisoners' drug use before prison and the links with

crime' in Ramsay, M. (ed) Prisoners' drug use and treatment: seven research studies. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Martin, C. and Player, E.** (2000) Drug Treatment in Prison: an evaluation of the RAPt treatment programme. Winchester: Waterside Press

**Martin, C., Player, E. and Liriano, S.** (2003) 'Results of evaluations of the RAPt drug treatment programme' in Ramsay, M. (ed) Prisoners' drug use and treatment: seven research studies. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Mason, P., Mason, D. and Brookes, N.** (2003) 'A process evaluation of drug treatment in English and Welsh prisons' in Ramsay, M. (ed) Prisoners' drug use and treatment: seven research studies. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Matrix Research and Consultancy and Nacro** (2004) Evaluation of drug testing in the criminal justice system. Home Office Research Study 286. Home Office Research, Development and Statistics Directorate. London: Home Office.

**May, C.** (1999) Explaining reconviction following a community sentence: the role of social factors. Home Office Research Study 192. Home Office Research, Development and Statistics Directorate. London: Home Office.

**NIDA** (1999) Principles of Drug Addiction Treatment: A Research Based Guide. Rockville, MD: NIDA

**Office of National Drug Control Policy (ONDCP)** (1996) Treatment Protocol Effectiveness Study. Executive Office of the President Office of National Drug Policy. As published at [www.ncjrs.org](http://www.ncjrs.org)

**Patel, K.** (1998) 'Drug and Asian Communities in the UK' in Fountain, J. (ed.) Qualitative Research – Knowledge for effective Action. Report on the proceedings of the seminar held in Lisbon 29-31 October 1998. As published on the Internet at [www.emcdda.eu.int](http://www.emcdda.eu.int)

**Peugh, J. and Belenko, S.** (1999) 'Substance-Involved Women Inmates: Challenges to Providing Effective Treatment'. The prison Journal, Vol.79 No.1

**Player, E. and Martin, C.** (1996) The ADT Drug Treatment Programme at HMP Downview - A Preliminary Evaluation, Home Office Research Findings No.31, London: Home Office

**Ramsay, M.** (ed) (2003) Prisoners' drug use and treatment: seven research studies. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.

**Roberts, M.** (2003) Drugs and crime: From warfare to welfare. London: Nacro

- Sherman, L.W.** (1997) Preventing Crime: What works, what doesn't, what's promising. Office of Justice Programmes Research Report. Washington DC: Department of Justice.
- Skogan, W.G.** (1990) Disorder and decline: Crime and the spiral of decay in American neighbourhoods. Berkeley: University of California Press.
- Stoever, H. and von Ossietzky, C.** (1998) Prison and Drugs 1998 – European Recommendations. WHO Health in Prison Project. As published on the Internet at [www.hipp-europe.org](http://www.hipp-europe.org)
- Sullivan, M.** (1989) Getting Paid. Ithaca, N.Y.: Cornell University Press.
- Vaillant, G.E.** (1988) 'What Can Long-Term Follow-up Teach Us about Relapse and Prevention of Relapse in Addiction?' *British Journal of Addiction* 83:1147-57
- Vaillant, G.E. and Milofsky, E.S.** (1982) 'Natural History of Male Alcoholism. IV. Paths to recovery'. *Archives of General Psychiatry* 39:127-33
- Walklate, S.** (1996) 'Community and Crime Prevention', in E.McLaughlin and J.Muncie (eds) *Controlling Crime*, London: Sage in Association with the Open University.
- Warr, M.** (1998) 'Life-Course Transitions and Desistance from Crime' *Criminology* 36:183-216
- Wilkinson, C., Hucklesby, A., Pearson, Y., Butler, E., Hill, A. and Hodkinson, S.** (2003) 'Management of drug-using prisoners in Leicestershire' in Ramsay, M. (ed) *Prisoners' drug use and treatment: seven research studies*. Home Office Research Study 267. Home Office Research, Development and Statistics Directorate. London: Home Office.
- White, H.R.** (1990) 'The drug use – delinquency connection in adolescence'. In Weisheit, R. (Ed.) *Drugs, crime and criminal justice*. Cincinnati: Anderson Publishing Company.
- White, H.R., Brick, J. and Hansell, S.** (1993) 'A longitudinal investigation of alcohol use and aggression in adolescence'. Supplement no.11. *Journal of Studies on Alcohol* (September): 62-77.
- Worrall, A. and Hoy, C.** (2005) *Punishment in the Community: Managing Offenders, Making Choices*, 2nd edn. Cullompton: Willan