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A Review of Research for Practitioners

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The Nexus Between Drugs and Crime: Theory, Research, and Practice

BY ARTHUR J. LURIGIO AND JAMES A. SWARTZ*

CRIME AND illicit drug use, especially the use of narcotics (opiates, opiate derivatives, and cocaine), have been closely linked since the passage in 1914 of the Harrison Act, making the distribution of narcotics a federal felony offense. Before that, narcotics were the basic ingredients in numerous nonprescription or patent “medicines” that claimed to cure a variety of symptoms and illnesses. The typical narcotics user then was a white, middle-aged woman (Musto, 1987).

The Harrison Act profoundly influenced public perceptions about illicit drug use. Mostly because of the political climates surrounding this and other antidrug legislation, illicit drug use in the United States is viewed predominantly as a criminal justice instead of a public health problem (Massing, 1998). And since the outset of drug law enforcement, policing activities have focused primarily on young male narcotics users from minority groups (Musto, 1987).

The population of chronic illicit drug users consists largely of poor, undereducated, unemployed, and uninsured persons. Illicit drug users disproportionately commit crimes and are at high risk for becoming involved in the criminal justice system (Woodward et al., 1997). Much of the harm and costs associated with illicit drug use, such as crime, lost work productivity, medical problems, and the spread of HIV, can be attributed to chronic, high-intensity users (i.e., those who use illicit drugs on a daily basis or multiple times per week during periods of active use).

In this review, the authors summarize research on the relationship between illegal drug use and crime. First we present prevalence estimates of illicit drug use among criminal justice populations. Then we describe various theories about the relationship between drugs and crime. Finally we discuss the effectiveness of drug treatment compared with other strategies for reducing illicit drug use.

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Prevalence of Illicit Drug Use

Drug use rates among offenders across the entire criminal justice continuum are significantly higher than those found in the general population. Illicit drug users not only report more criminal activities than nonusers but are also more likely to have official criminal records (Chaiken & Chaiken, 1990). Between 1980 and 1994, the number of state and local arrests for drug offenses rose from 581,000 to 1,350,000. During this time period, the composition of arrests shifted from mostly marijuana to mostly cocaine and heroin, and arrests for drug distribution accounted for a greater share of total drug arrests (from 18 percent to 27 percent of the total) (MacCoun & Reuter, 1998).

Beginning in 1987 the Drug Use Forecasting (DUF) program of the National Institute of Justice, which monitored the drug use of arrestees in 24 American cities, consistently showed that large proportions of arrestees—as many as 90 percent at some times, in some places—tested positive for at least one illicit substance (Wish & Gropper, 1990). At all 24 DUF sites, cocaine, marijuana, and opiate use have been quite prevalent, particularly among arrestees charged with drug sales or possession, burglary, theft, and possession of stolen property (see, e.g., National Institute of Justice, 1993).

In 1997 DUF, now known as the Arrestee Drug Abuse Monitoring Program (ADAM), tested more than 27,000 adult arrestees in 21 cities for drug use. At all ADAM sites, the majority of adult male arrestees tested positive for one or more illicit drugs. “The same [was] true for adult female arrestees in 19 out of 21 sites where [ADAM] data were collected” (National Institute of Justice, 1998 p. 4).

As might be expected, large percentages of jail inmates are drug users as well. McBride and Inciardi (1990) reported that more than 80 percent of a sample of street injection-drug users in Miami had been in jail in the past five years, and almost half had been incarcerated in the past six months. In a related study of more than 25,000 street injection-drug users in 63 cities, Inciardi, McBride, Platt, and Baxter (1993) found that approximately two-thirds had been in jail during the previous five years; more than one-third were currently awaiting trial or were on probation or parole supervision.

Drug use among jail inmates has risen substantially in recent years and is nearly twice as prevalent as drug use in

the general population (Bureau of Justice Statistics, 1991). A Bureau of Justice Statistics (BJS) survey (1989) found that three out of four jail inmates admitted having used drugs at some time. Among inmates sentenced for property crimes, nearly one-third reported that they were under the influence of drugs when they committed their conviction offenses; nearly one-fourth reported that a drug habit motivated them to commit their conviction offenses; and 16 percent of the men and 33 percent of the women reported that they had used major drugs (heroin, crack, cocaine, PCP, methadone) daily in the month preceding their most recent arrests.

High rates of illicit drug use are also found among prison inmates (Harlow, 1991). A BJS profile of the nation's prison inmates demonstrated that nearly three-fourths had used drugs. One-third of the inmates reported that they regularly had used heroin, cocaine, or other major drugs. More than one-half reported that they had used drugs in the month before committing their conviction offenses and that they were under the influence of drugs or alcohol when they committed their conviction offenses (Innes, 1988).

According to more recent BJS (1997b; 1999) studies of prison inmates, 62 percent of the state prisoners and 42 percent of the federal prisoners had polysubstance abuse problems before their incarcerations. The link between drug use and criminality is supported by the finding that 70 percent of state prison inmates and 57 percent of federal prison inmates reported "regular" use (i.e., used the drug at least once a week for at least a month) of drugs at some point in their lives (Bureau of Justice Statistics, 1999). The proportion of state inmates reporting lifetime regular use of cocaine/crack and of heroin was 34 percent for each.

In 1992 more than one-third of the felons convicted of drug possession and nearly one-fourth of those convicted of drug trafficking were sentenced to probation (Langan & Perkins, 1994). In a 1995 census of probation caseloads conducted by BJS, 70 percent of the probationers reported that they had used illicit drugs at some time, one-third stated that they had used drugs in the month preceding their arrests, and 14 percent were on drugs when they committed their instant offenses (Mumola, 1998).

As the preceding studies clearly demonstrate, rates of illicit drug use, especially heroin and cocaine, are quite high among criminal justice populations. Moreover, although illicit drug use has declined or held steady in the general population during the past few years—with slight increases in marijuana use in the early 1990s—it has increased among various criminal populations over the same time period (e.g., Harrison & Gfroerer, 1992).

The trend of rising drug use among offenders might be due to an actual increase in drug use or to a selection bias: Crime-prone persons who use illicit drugs might simply be more likely to get arrested and incarcerated because they are more inept at committing crimes or because their offending patterns are less calculated and more opportunistic than nondrug-using offenders who avoid arrests (Chaiken and Chaiken, 1990). Regardless of the explanation

for the increase, the problem of illegal drug use among offenders is substantial. The fact that many persons in the criminal justice system use illegal drugs has fostered the conventional wisdom that "drug use causes crime."

Nexus Between Drugs and Crime

Many studies have confirmed that drug use and crime are correlated (e.g., Chaiken, 1986; Speckart & Anglin, 1986b). The longitudinal National Youth Survey, for example, found that youths who commit delinquency index crimes are significantly more likely to use cocaine than are minor delinquents or nondelinquents (Johnson, Wish, Schmeidler, & Huizinga, 1993). Other longitudinal studies of adolescents also have found that more serious delinquents are heavier drug users (e.g., Elliott, Huizinga, & Ageton, 1985). In agreement with the research on drugs and crime among youths, a survey of 700 adult cocaine users found that users had engaged in "an amazing amount of criminal activity (excluding drug law violations)" in the 90 days before they were interviewed for the study (Inciardi, McBride, McCoy, & Chitwood, 1995, p. 126).

One of the best-supported correlational findings in the literature on illicit drug use and crime is that serious drug use intensifies and perpetuates pre-existing criminal activity. Specifically, the need for money to purchase drugs is a motivating factor for criminally-active drug users (e.g., Ball, Rosen, Flueck, & Nurco, 1981).

Support for an income-generating explanation of the drugs-crime nexus comes from two types of studies: studies of the relationship between illegal income and drug purchases and studies of the relationship between drug use intensity and criminal activity. McGlothlin (1978), for example, found that offenders' incomes from property crimes increased proportionately with their drug use. In a 1989 jail survey, nearly 40 percent of the inmates who used cocaine reported that they had committed their instant offenses for money to buy drugs (Bureau of Justice Statistics, 1991). In another study, heroin users were found to spend 90 cents of every illegal dollar earned on drugs (Goldman, 1981). A direct relationship between illegal income and drug spending was also found among cocaine users (Collins, Hubbard, & Rachal, 1985).

Anglin and Speckart (1988) reported that narcotics addicts increased their criminal activities dramatically during periods of accelerated drug use and that the onset of their addictions coincided with a sharp rise in criminal activities (also see De Fleur, Ball, & Snarr, 1969). Similarly, a study of Baltimore addicts found that addicts' criminal activities decreased by 84 percent during the months and years in which they refrained from using heroin or other opiates (Ball, Rosen, Flueck, & Nurco, 1981).

Other research has shown that criminal activity is substantially greater among frequent drug and polydrug users than among sporadic drug users or nonusers of drugs (e.g., Bureau of Justice Statistics [BJS], 1992; Wexler, Lipton, & Johnson, 1988). Thus drug-using offenders, especially those with serious drug abuse and dependence problems, commit

a greater variety of income-generating crimes and commit crimes at higher rates than offenders without drug problems (e.g., Dembo, Williams, & Schmeidler, 1993).

Some drug users participate in producing, distributing, and selling illicit drugs in order to earn money for drugs (Goldstein & Duchaine, 1980). In a study of drug sellers in Washington, D.C., Reuter, MacCoun, and Murphy (1990) estimated that street drug sales generated approximately \$350 million in 1988, more than twice the estimated earnings from robbery and property crimes such as burglary and shoplifting.

Heavy drug users commit more income-generating property crimes than violent offenses, including violent predatory crimes (e.g., Ball, Shaffer, & Nurco, 1983). Studies suggest, however, that increases in cocaine use are associated with significant increases in violent crimes for both men and women offenders (e.g., Spunt, Goldstein, Bellucci, & Miller, 1990). The violent crime that cocaine users often commit is robbery, a high-risk offense that they commonly view as an expedient means of obtaining income as other sources of money become unavailable (Wright & Decker, 1997).

The violence associated with illicit drug use, especially in graphic media reports of gang wars, is closely related to the drug trade and occurs because of conflicts stemming from the importation, distribution, and sale of cocaine and other illicit substances (Goldstein, 1985). The systemic violence of the drug trade was first recognized as a serious problem in 1985 when crack cocaine became widespread in major metropolitan areas. Well-armed and violent drug dealers led the struggle to protect or gain control over initially unstable, highly lucrative drug markets (e.g., McBride & Swartz, 1990).

Some researchers have suggested that criminal involvement causes drug use by providing "the context, the reference group, and definitions of the situation that are conducive to subsequent involvement with drugs" (White 1990, p. 223; also see Collins, Hubbard, & Rachal, 1985). In this model, criminals use drugs before committing offenses "to bolster courage or afterward to celebrate success" (Hamid, 1998, p. 132).

In a correlational study, Johnson, O'Malley, and Eveland (1978) found that delinquency and criminal behaviors predate drug use in juvenile populations. Similar findings are reported in the National Youth Survey (Huizinga, Menard, & Elliott, 1989), which showed a general progression of activities: minor delinquency, alcohol consumption, index offenses, marijuana use, and polydrug use, in that order. Huizinga et al. (1989) reported that minor delinquency preceded drug use in nearly all of the cases studied. Overall, explanations that "crime precedes drug use involve the arguments that drug use is simply another form of deviant behavior and that involvement with delinquency/criminality provides resources and contacts necessary for entering into drug use" (Lab, 1992, p. 167).

Still others have suggested that the relationship between drug use and crime is reciprocal and mutually reinforcing: As persons commit more income-generating crimes, they find it easier to buy drugs. And as they use drugs more frequently, they are compelled to commit more crimes to support their intensifying addictions. In this explanation, "drug

use and offending are interrelated lifestyles and the relationship between drugs and crime lies in the overlap between the two lifestyles" (Hamid, 1998, p. 133).

For most youths, drug use and delinquency are not causally related in either direction, but contemporaneous behaviors stemming from common causes such as social disaffection, poor relationships with parents, school failure, and deviant peers (e.g., Hamid, 1998; Inciardi, Horowitz, & Pottieger, 1993).

Among adult offenders, the connection between drug use and crime can be explained by criminal subculture theory (e.g., Fagan, Weis, & Cheng, 1990; McLellan, Luborsky, Woody, O'Brien, & Kron, 1981). Within this framework, members of criminal subcultures are described as self-indulgent, hedonistic, materialistic, indifferent to risk, and committed to living the "fast life." For these individuals, drug use and crime operate along parallel lines; they are components of a larger complex of destructive behaviors, which also includes high-risk sex (McBride & McCoy, 1993).

In summary, the precise relationship between drug use and crime is complex, and little support can be found for a single, specific, and direct causal connection. At the most intense levels of drug use, however, there is considerable evidence of a powerful and direct correlation (e.g., McBride & McCoy, 1982, 1993; Speckart & Anglin, 1986a).

The literature generally suggests that criminal activity is neither an inevitable consequence of illicit drug use (apart from the illegal nature of drug use itself) nor a necessary or sufficient condition for criminal behavior (Chaiken & Chaiken, 1990). Many illegal drug users commit no other kinds of crimes, and many persons who commit crimes never use illegal drugs. Furthermore, even when people commit crimes while using illegal drugs, there may not be a causal connection between the two. As stated in an ONDCP (1997) report, "most crimes result from a variety of factors (personal, situational, cultural, economic), so even when drugs are a cause, they are more likely to be only one factor among many" (p. 3). Thus the evidence that drug use alone inexorably leads to criminal activity is weak.

Evidence does, however, support the notion that illegal drug use intensifies criminal activity among drug-prone individuals. As illegal drug use increases in frequency and amount, so does criminal behavior. Persons who are criminally-inclined tend to commit more crimes and more serious crimes after they become dependent on drugs. Conversely, as their drug use decreases so do the number of crimes they commit (Anglin & Speckhart, 1988). In addition, research suggests that illicit drug use and criminal activity often occur together as part of a deviant lifestyle (Wright & Decker, 1997).

The propensity for crime-prone, drug-using persons to commit property or violent crimes might increase after they cross the threshold of abuse or dependence. And an unknown number of illegal drug users, perhaps even dependent users, are able to maintain steady employment and never commit crimes, other than the crime of illicit drug use (Waldorf, Reinerman, & Murphy, 1993).

Criminal Justice Response to Illicit Drug Use

Stepped-up drug enforcement has been a centerpiece of the country's drug policy for the past 25 years (Anderson, 1998; Massing, 1998). Since the mid-1980s, unprecedented surges in arrests, prosecutions, and harsher sentences for drug offenders have caused monumental management and operational problems for criminal justice agencies (Belenko, 1990). The criminal justice system's response to the drug problem in turn has led to severe logjams in the courts, prison and jail overcrowding, soaring costs for constructing new prisons and jails, and early release from prison for violent felons (Peters, 1993).

During the 1980s and 1990s, many states also significantly increased penalties for drug offenses, resulting in prison sentences for almost two-thirds of convicted drug traffickers (Bureau of Justice Statistics, 1992). In 1994, for example, drug offenders accounted for nearly one-third of the 872,200 felony convictions in state courts (Bureau of Justice Statistics, 1997a). And from 1986 to 1992, the percentage of convictions in state courts for felony drug trafficking more than doubled: from 40,000 to 86,000 (MacCoun & Reuter, 1998).

A serious consequence of the most recent war on drugs is that many of the nation's most chronic addicts are now under the control of the criminal justice system. An Institute of Medicine (1990) report, for example, stated that one-fifth of the country's population in need of drug treatment is on probation or parole supervision.

Since the Bush Administration's creation of the Office of National Drug Control Policy in 1988, approximately 70 percent of all federal antidrug money has been spent on supply reduction strategies such as interdiction, source-country control, and street-level enforcement; only 30 percent has been spent on prevention and treatment efforts (Heaps & Swartz, 1995). Most states have been spending the largest proportion of their drug budgets on enforcement and interdiction and relatively little on treatment and prevention. Therefore the disproportion in spending is even larger than the federal figures alone would suggest (Heaps & Swartz, 1995).

Notwithstanding our emphasis on supply reduction strategies, an impressive body of evidence shows that drug treatment is a potent strategy for controlling illegal drug use and crime and is more cost-effective than law enforcement and interdiction efforts.

Three large-scale national studies of drug treatment have been conducted since the late 1970s: The Drug Abuse Reporting Program (DARP), the Treatment Outcomes Prospective Study (TOPS), and the Drug Abuse Treatment Outcomes Study (DATOS) (see Fletcher, Tims, & Brown, 1998). These studies have included tens of thousands of participants in hundreds of drug treatment programs and have involved years of careful follow-up research using longitudinal designs. All the studies have shown that participation in drug treatment for at least 3 months substantially reduces both drug use and crime, even among those who fail to complete treatment (General Accounting Office [GAO], March 27, 1998). Moreover, the studies demonstrated that treated

drug users maintain lower rates of drug use and crime long past the end of treatment (Fletcher et al., 1998).

RAND Corporation researchers compared the relative effectiveness of drug treatment with interdiction efforts and the incarceration of drug offenders (Rydell & Everingham, 1994; see also Rasmussen & Benson, 1999). Using national data sources, the investigators developed a mathematical model to predict how much money would have to be spent on each type of intervention (interdiction, incarceration, and treatment) to achieve a 1 percent reduction in the yearly national consumption of cocaine.

The RAND study's results were striking. For every dollar spent on drug treatment, seven dollars would have to be spent on imprisonment and twenty-five dollars on interdiction in order to achieve the same degree of reduction in cocaine use. The implications of RAND's findings are that this country's drug policies would be substantially more effective if even a small portion of the resources now devoted to enforcement and interdiction were shifted to drug treatment programs.

Other studies have shown that treatment for drug-abusing offenders reduces drug use and criminal activity (e.g., Anglin & Hser, 1990; Office of Technology Assessment, 1990). A recent study of persons who had undergone drug treatment found an overall 33 percent reduction in post-treatment criminal behavior five years after discharge from treatment (Substance Abuse Letter, 1998). Findings from large national surveys have yielded similar results. The National Treatment Improvement Evaluation Study, for example, found that 48 percent of treatment participants reported arrests in the year preceding treatment, but only 17 percent were arrested in the year following treatment (GAO Report, 1998). Hence "treating the substance abuse problems of offenders is an important element in any overall strategy to reduce drug use and recidivism among the offender population" (Anglin, Longshore, Turner, McBride, Inciardi, & Prendergast, 1996, p. 2).

Research suggests that offenders who are coerced into drug treatment by legal mandates are just as successful in recovery as those who enter treatment programs voluntarily. And legally coerced participants often remain longer in drug treatment programs (Anglin, Brecht, and Maddahian [1990]; Farabee, Prendergast, & Anglin, 1998).

Drug addicts who are processed through the criminal justice system typically have multiple deficits and problems. Many addicted criminal offenders are undereducated, suffer from psychological and medical disorders, and lack the social skills and training necessary for gainful employment. Many also have histories of family difficulties and of physical and emotional abuse (McLellan, Luborsky, Woody, O'Brien, & Druley, 1983). Furthermore, drug addicts are more likely than their nondrug-using counterparts to suffer from various physical diseases such as AIDS, hepatitis B, endocarditis, and pneumonia, and to die prematurely (Johnson, Williams, Dei, & Sanabria, 1990).

Therefore, in order to be successful, criminal justice drug treatment programs should consist of a wide range of services including detoxification, educational and vocational

training, urine testing, counseling, HIV education and prevention, training in life and interpersonal skills, psychiatric care, pharmacotherapy, psychotherapy, relapse prevention training, and self-help groups (Peters, 1993).

Despite the apparent benefits of drug treatment for offenders, the proportions of inmates in treatment in state and federal prisons declined significantly from 1991 to 1997. Among state prisoners, the percentage of inmates on drug treatment fell from 24 to 10 percent, and among federal prisoners, it fell from 16 to 9 percent (Bureau of Justice Statistics, 1999).

The case for drug treatment, however, must not be overstated; it is not a panacea. Too many individuals continue to drop out of drug treatment after only a short period of time, and relapse rates are high. In addition, the benefits of treatment might have been exaggerated because treatment evaluation studies have relied heavily on self-reports to measure drug use (General Accounting Office, 1998).

Conclusions

Offenders with drug problems are a diverse group, and the relationship between drugs and crime is complicated. Offenders become involved with drugs and criminal activities by different pathways that can be divergent, parallel, or overlapping. Whatever the road to addiction and criminality, crime control policies must begin to fully recognize what research has consistently demonstrated: Drug addiction is a chronic relapsing disorder with biological, psychological, social, and behavioral concomitants. By the same token, programs for drug offenders must be comprehensive and should include treatment and adjunctive social services.

The lengthy debate about the best means to reduce illegal drug use in this country continues to be fueled by ideological fervor instead of sound research (MacCoun & Reuter, 1998). But there is no debate over the fact that illegal drug use is a significant and complex social problem that will continue to challenge policy-makers and criminal justice and treatment practitioners.

REFERENCES

- Anderson, D.C. (1998). *Sensible justice: Alternatives to prison*. New York: New York Press.
- Anglin, M.D., Brecht, M.L., & Maddahian, E. (1990). Pretreatment characteristics and treatment performance of legally coerced versus voluntary methadone maintenance admissions. *Criminology*, 27: 537-557.
- Anglin, M.D., & Hser, Y. (1990). Treatment of drug abuse. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and Crime* (pp. 393-460). Chicago: University of Chicago Press.
- Anglin, M.D., Longshore, D., Turner, S., McBride, D., Inciardi, J.A., & Prendergast, M.L. (1996). *Studies of the functioning and effectiveness of Treatment Alternatives to Street Crime (TASC) programs*. Los Angeles: UCLA Drug Abuse Research Center.
- Anglin, M.D., & Speckart, G. (1988). Narcotics use and crime: A multisample, multiperiod analysis. *Criminology*, 26: 197-233.
- Ball, J.C., Rosen, L., Flueck, J.A., & Nurco, D.N. (1981). The criminality of heroin addicts: When addicted and when off opiates. In J.A. Inciardi (Ed.), *The drugs-crime connection* (pp. 39-65). Beverly Hills, CA: Sage.
- Ball, J.C., Shaffer, J.W., & Nurco, D.N. (1983). The day-to-day criminality of heroin addicts in Baltimore: A study in the continuity of offense rates. *Drug and Alcohol Dependence*, 12: 119-142.
- Belenko, S. (1990). The impact of drug offenders on the criminal justice system. In R. A. Weisheit (Ed.), *Drugs, crime, and the criminal justice system* (pp. 27-28). Cincinnati: Anderson.
- Bureau of Justice Statistics. (1989). *Prisoners in 1987. BJS Bulletin*. Washington, DC: Author.
- Bureau of Justice Statistics. (1999). *Prisoners in 1997. BJS Bulletin*. Washington, DC: Author.
- Bureau of Justice Statistics. (1991). Drugs and crime data. Fact sheet: *Drug data summary*. Washington, DC: Author.
- Bureau of Justice Statistics. (1992). *Drugs, crime and the justice system*. Washington, DC: Author.
- Bureau of Justice Statistics. (1997a). *Felony convictions*. Washington, DC: Author.
- Bureau of Justice Statistics. (1997b). *Prisoners in 1996*. Washington, DC: Author.
- Bureau of Justice Statistics. (1997c). *Characteristics of adults on probation, 1995*. Washington, DC: Author.
- Chaiken, J.M., & Chaiken, M.R. (1990). Drugs and predatory crime. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and crime* (pp. 203-240). Chicago: University of Chicago Press.
- Chaiken, M.R. (1986). Crime rates and substance abuse among types of offenders. In B.D. Johnson & E. Wish (Eds.), *Crime rates among drug-abusing offenders* (pp. 17-36). New York: Narcotics and Drug Research.
- Collins, J.J., Hubbard, R.L., & Rachel, J.V. (1985). Expensive drug use and illegal income: A test of explanatory hypotheses. *Criminology*, 23: 743-764.
- DeFleur, L.B., Ball, J.C., & Snarr, R.W. (1969). The long-term correlates of opiate addiction. *Social Problems*, 17: 225-234.
- Dembo, R., Williams, L., & Schmeidler, J. (1993). Addressing the problems of substance abuse in juvenile corrections. In J.A. Inciardi (Ed.), *Drug treatment and criminal justice* (pp. 97-126). Newbury Park, CA: Sage.
- Elliott, D.S., Huizinga, D., & Ageton, S.S. (1985). *Explaining drug use and delinquency*. Beverly Hills, CA: Sage.
- Fagan, J., Weis, J.G., & Cheng, Y.T. (1990). Delinquency and substance abuse among inner city students. *Journal of Drug Issues*, 20: 351-402.
- Farabee, D., Prendergast, M., & Anglin, M.D. (1998). The effectiveness of coerced treatment for drug-abusing offenders. *Federal Probation*, 62: 3-10.
- Fletcher, B.W., Tims, F.M., & Brown, B.S. (1998). Drug Abuse Treatment Outcome Study (DATOS): Treatment evaluation research in the United States. *Psychology of Addictive Behaviors*, 11: 216-229.
- General Accounting Office [GAO]. (March 27, 1998). *Drug abuse studies show treatment is effective but benefits may be overstated* (GAO/HEHS-98-72).
- Goldman, F. (1981). Drug abuse, crime, and economics: The dismal limits of social choices. In J.A. Inciardi (Ed.), *The drugs-crime connection* (pp. 155-182). Beverly Hills, CA: Sage.
- Goldstein, P.J. (1985). The drugs/violence nexus. *Journal of Drug Issues*, 15: 493-506.
- Goldstein, P.J., & Duchaine, N. (1980). *Daily criminal activities of street drug users*. Paper presented at the annual meeting of the American Society of Criminology.
- Hamid, A. (1998). *Drugs in America*. Gaithersburg, MD: Aspen Publishers.
- Harlow, C.W. (1991). *Drugs and jail inmates, 1989*. Washington, DC: Bureau of Justice Statistics.
- Harrison, L., & Gfroerer, J. (1992). The intersection of drug use and criminal behavior: Results from the National Household Survey on Drug Abuse. *Crime and Delinquency*, 38: 422-443.
- Heaps, M.M., & Swartz, J.A. (1995). Toward a rational drug policy. In *Proceedings of the University of Chicago Legal Forum on Drugs and Crime* (pp. 175-205). Chicago: University of Chicago Press.
- Huizinga, D.H., Menard, S., & Elliott, D.S. (1989). Delinquency and drug use: Temporal and developmental patterns. *Justice Quarterly*, 6: 419-456.

- Inciardi, J.A., Horowitz, R., & Pottieger, A.E. (1993). *Street kids, street drugs, street crime: An examination of drug use and serious delinquency in Miami*. Belmont, CA: Wadsworth.
- Inciardi, J.A., McBride, D.C., McCoy, H.V., & Chitwood, D.D. (1995). Recent research on the crack-cocaine/crime connection. *Studies on Crime and Crime Prevention*, 6: 118-137.
- Inciardi, J.A., McBride, D.C., Platt, J.J., & Baxter, S. (1993). Injecting drug users, incarceration, and HIV: Some legal and social service delivery issues. In *The national AIDS demonstration research program* (pp. 187-210). Westport, CT: Greenwood.
- Innes, C.A. (1988). *State prison inmate survey, 1986: Drug use and crime*. Washington, DC: Bureau of Justice Statistics.
- Institute of Medicine, Committee for the Substance Abuse Coverage Study. (1990). A study of the evolution, effectiveness, and financing of public and private drug treatment systems. In D. R. Gerstein & H. J. Harwood (Eds.), *Treating drug problems* (pp. 45-67). Washington, DC: National Academy Press.
- Johnston, L.D., O'Malley, P., & Eveland, L. (1978). Drugs and delinquency: A search for causal connections. In D. B. Kandel (Ed.), *Longitudinal research on drug use* (pp. 47-63). Washington, DC: Hemisphere.
- Johnson, B.C., Williams, T., Dei, K.A., & Sanabria, H. (1990). Drug abuse in the inner city: Impact on hard-drug users and the community. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and crime* (pp. 9-68). Chicago: University of Chicago.
- Johnson, B.D., Wish, E.D., Schmeidler, J., & Huizinga, D. (1993). Concentration of delinquent offending: Serious drug involvement and high delinquency rates. In R. Dembo (Ed.), *Drugs and crime* (pp. 1-25). Lanham, MD: University Press of America.
- Lab, J.P. (1992). *Crime prevention: Approaches, practices, and evaluations*. Cincinnati, OH: Anderson.
- Langan, P.A., & Perkins, C.A. (1994). *Felony sentences in the United States, 1990*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.
- MacCoun, R.J., & Reuter, P. (1998). Drug control. In M. Tonry (Ed.), *The handbook of crime and punishment* (pp. 207-240). New York: Oxford University Press.
- Massing, M. (1998). *The Fix*. New York: Simon and Schuster.
- McBride, D.C., & Inciardi, J.A. (1990). AIDS and the IV drug user in the criminal justice system. *Journal of Drug Issues*, 20: 267-280.
- McBride, D.C., & McCoy, C.B. (1982). Crime and drugs: The issues and literature. *Journal of Drug Issues*, 12: 137-151.
- McBride, D.C., & McCoy, C.B. (1993). The drugs-crime relationship: An analytical framework. *The Prison Journal*, 73: 257-278.
- McBride, D.C., & Swartz, J.A. (1990). Drugs and violence in the age of crack cocaine. In R. Weisheit (Ed.), *Drugs, crime and the criminal justice system* (pp. 141-170). Cincinnati: Anderson Publishing.
- McGlothlin, W.M. (1978). The etiologic relationship between drug use and criminality. In Y. Israel, F. Glaser, H. Kalant, R. Popham, W. Schmit, & R. Smart (Eds.), *Research advances in alcohol and drug problems* (pp. 201-226). New York: Plenum Press.
- McLellan, A.T., Luborsky, L., Woody, G. E., O'Brien, C. P., & Kron, R. (1981). Are the "addiction-related" problems of substance abuses really related? *The Journal of Nervous and Mental Disease*, 173: 94-102.
- Mumola, C.J. (1998, March). *Substance abuse and treatment of adults on probation, 1995*. Washington, DC: Bureau of Justice Statistics.
- Musto, D. (1987). *The American disease: Origins of narcotics control*. New York: Oxford University Press.
- National Institute of Justice. (1993). *Drug use forecasting—1992 annual report: Drugs and crime in America's cities*. Washington, D.C.: U.S. Department of Justice.
- National Institute of Justice. (1998). *Arrestee Drug Abuse Monitoring Program: 1997 annual report on adult and juvenile arrestees*. Washington, DC: National Institute of Justice.
- Office of National Drug Control Policy. (1997). *Fact sheet: Drug-related crime*. Washington, DC Author.
- Office of Technology Assessment. (1990). *The effectiveness of drug abuse treatment: Implications for controlling AIDS/HIV infection*. Washington, DC: U.S. Government Printing Office.
- Peters, R.H. (1993). Drug treatment in jails and detention settings. In J.A. Inciardi (Ed.), *Drug treatment and criminal justice* (pp. 44-80). Newbury Park, CA: Sage.
- Rasmussen, D.W., & Benson, B.L. (1999). Reducing the harms of drug policy. *Journal of Substance Use and Misuse*, 34: 49-67.
- Reuter, P., MacCoun, R.J., & Murphy, P. (1990). *Money from crime: A study of the economics of drug dealing in Washington, D. C.* Santa Monica, CA: Rand Corporation.
- Rydell, C.P., & Everingham, S.S. (1994). *Modeling the demand for cocaine*. Santa Monica: RAND.
- Speckart, G.R., & Anglin, D.M. (1986a). Narcotics and crime: A causal modeling approach. *Journal of Quantitative Criminology*, 2: 3-28.
- Speckart, G.R., & Anglin, M.D. (1986b). Narcotics use and crime: An overview of recent research advances. *Contemporary Drug Problems*, 13: 741-769.
- Spunt, B.J., Goldstein, P.J., Bellucci, P.A., & Miller, T. (1990). Race/ethnic and gender differences in the drugs-violence relationship. *Journal of Psychoactive Drugs*, 22: 293-303.
- Substance Abuse Letter. (1998, September 17). *Drop seen in drug abuse five years after treatment*. Washington, DC: Pace Publications.
- Waldorf, D., Reinerman, C., & Murphy, S. (1993). *Cocaine changes: The experience of using and quitting*. Philadelphia: Temple University Press.
- Wexler, H.K., Lipton, D.S., & Johnson, B.D. (1988). *A criminal justice system strategy for treating cocaine-heroin abusing offenders in custody*. Washington, DC: U.S. Department of Justice, National Institute of Justice.
- White, H.R. (1990). The drug use-delinquency connection in adolescence. In R. Weisheit (Ed.), *Drugs, crime, and the criminal justice system* (pp. 215-256). Cincinnati, OH: Anderson.
- Wish, E.D., & Gropper, B.A. (1990). Drug testing by the criminal justice system: Methods, research, and applications. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and crime* (pp. 321-392). Chicago: University of Chicago Press.
- Wright, R.T., & Decker, S.H. (1997). *Armed robbers in action*. Boston: Northeastern University Press.