



CRIMINAL ADDICTS OR ADDICTED CRIMINALS: THEORIES OF THE DRUG-CRIME RELATIONSHIP

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ABOUT THE INSTRUCTOR

Dr. Robert A. Shearer is a retired professor of Criminal Justice, Sam Houston State University. He received his Ph.D. in Counseling and Psychology from Texas A & M University, Commerce. Prior to teaching Criminal Justice, he taught Educational Psychology at Mississippi State University on campus and in the extension program across rural Mississippi during the civil rights era.

He has been teaching, training, consulting and conducting research in the fields of Criminal Justice, human behavior, and addictions for over thirty-six years. He is the author of over sixty professional and refereed articles in Criminal Justice and behavior. He is also the author of *Interviewing: Theories, techniques, and practices*, 5th edition published by Prentice Hall. Dr. Shearer has also created over a dozen measurement, research, and assessment instruments in Criminal Justice and addictions.

He has been a psychotherapist in private practice and served as a consultant to dozens of local, state, and national agencies. His interests continue to be substance abuse program assessment and evaluation. He has taught courses in interviewing, human behavior, substance abuse counseling, drugs-crime-social policy, assessment and treatment planning, and educational psychology. He has also taught several university level psychology courses in the Texas Department of Criminal Justice Institutional Division, led group therapy in prison, trained group therapists, and served as an expert witness in various courts of law.

He has been the president of the International Association of Addictions and Offender Counseling and the editor of the *Journal of Addictions and Offender Counseling* as well as a member of many Criminal Justice, criminology, and counseling professional organizations prior to retirement.

Current Research on the Drug-Crime Relationship

The theoretical models explored in this course, the medical model, the criminal model, and the integrated approaches, have continued to generate research. While the fundamental question of whether drugs cause crime, crime causes drug use, or both share common underlying causes remains debated, recent large-scale studies have provided new data on how substance use and criminal behavior interact.

A 2022 Swedish cohort study tracked 4,207 prison clients with substance use disorders over an average of 2.7 years. Sixty-eight percent returned to the criminal justice system. The researchers found that risk factors differed substantially when analyzing specific crime categories rather than treating recidivism as a single outcome. Alcohol use was specifically associated with violent recidivism. Age, heroin use, and injection drug use elevated the risks of property and drug crime. Interestingly, in this sample sedatives and cannabis functioned as negative risk factors for general recidivism, a reminder that the drug-crime relationship is substance-specific rather than uniform (Karlsson & Hakansson, 2022).

This crime-specific approach to understanding the drug-crime relationship represents an advance over the global models discussed earlier in this course. Rather than asking whether drugs cause crime in general, the research now asks which specific substances are associated with which specific types of criminal behavior, and what mediating factors such as housing, mental health, and employment modify those relationships. For the practitioner, this means an assessment that stops at "the client uses drugs and commits crimes" is incomplete. Which drug, which crime, and which surrounding conditions all shape both the risk picture and the treatment plan.

The Syndemic Model: Beyond Linear Causation

A 2023 review in *Current Opinion in Psychiatry* proposed a syndemic framework for understanding the relationship between polysubstance use and criminal justice involvement. The researchers analyzed 18 studies and found further evidence of the syndemic nature of polysubstance use, criminal justice involvement, and adverse outcomes, meaning these factors compound each other in ways that exceed their individual effects (Jones et al., 2023).

The syndemic model moves beyond the "chicken or egg" debate that characterizes much of the drug-crime literature reviewed in this course. It argues that substance use, criminal behavior, poverty, trauma, mental illness, and social marginalization form an interconnected cluster of conditions that reinforce each other. Interventions targeting any single factor in isolation, treating the addiction without addressing homelessness, or incarcerating the offender without treating the addiction, produce limited results because the other factors in the cluster continue to drive the cycle.

For practitioners, the syndemic framework has practical implications. Assessment should be multidimensional, capturing not only substance use and criminal history but also housing status, mental health, trauma exposure, and social support. Treatment planning should address the cluster of co-occurring conditions rather than prioritizing one domain at the expense of others. A client whose addiction is treated but who returns to homelessness, untreated depression, and the same criminalized social network has received only a fraction of what the evidence says is needed.

The syndemic view also helps the practitioner make sense of the discouraging pattern in which a client does everything asked of them inside a program and still relapses and reoffends after discharge. When that happens, the temptation is to conclude that the client was not serious or that treatment does not work. The syndemic model offers a more accurate and more actionable reading: the single factor that was treated was embedded in a cluster of factors that were not, and the untreated members of the cluster pulled the client back. A person who leaves residential treatment genuinely changed, but returns to a shelter bed in a neighborhood saturated with the drug, to untreated trauma, and to the only social network they have, is facing conditions that would challenge anyone's recovery. Reading the relapse this way does not excuse it, but it points the practitioner toward the parts of the cluster that the next plan must address, rather than toward writing the client off. It is also a corrective against measuring a program solely by outcomes it cannot control on its own, and against blaming clients for the predictable consequences of gaps in a fragmented system.

Cognitive Distortions at the Intersection of Addiction and Crime

A 2024 systematic review examined 25 studies published between 2019 and 2024 on the role of cognitive distortions in criminal behavior. The review found that distorted thinking patterns not only induce unlawful conduct but also have distinct impacts on various kinds of offenses. Different types of cognitive distortions, such as minimization, victim stance, entitlement, and power orientation, were associated with different categories of criminal behavior (Syasyila et al., 2024).

A 2022 longitudinal study of 341 veterans with criminal histories in residential mental health care used latent class analysis to map the interaction between substance use and criminal thinking over time. Four subgroups emerged: 53 percent showed normative improvement in both domains; 27 percent maintained high criminal thinking; 11 percent experienced substance use recurrence; and 9 percent showed persistent high drug use. Depression scores were nearly double in the three higher-risk classes compared to the normative improvement class at follow-up (Timko et al., 2022).

These findings bridge the theoretical frameworks discussed in this course. The cognitive dimension, how individuals think about their substance use and their criminal behavior, operates alongside the pharmacological, social, and economic factors traditionally emphasized in drug-crime theories. Effective intervention must engage the thinking patterns that sustain both addiction and criminal behavior, not just the behavioral symptoms.

From Theory to Treatment: Does Addressing Substance Use Reduce Crime?

The theoretical debates about the drug-crime relationship reviewed in this course have a practical test. If substance use genuinely drives criminal behavior, then treating the substance use should reduce the crime. If crime and drug use merely travel together because both spring from a common cause, then treating the addiction alone should leave the offending largely untouched. The most rigorous recent evidence lands closer to the first position, though with important qualifications that the practitioner needs to understand.

A 2024 study published in BMC Psychiatry used nationwide Swedish registry data from 11,893 individuals to test this directly. Treatment-based diversion as an alternative to imprisonment produced concrete results. Substance misuse decreased by 7 percentage points (95% CI: 8.8 to 5.5), adverse mental health events dropped by 5 percentage points, adverse somatic health events dropped by 9 percentage points, and participants accumulated roughly 3 fewer criminal charges compared to standard incarceration (Virtanen et al., 2024).

These findings support an integrated view of the drug-crime relationship. Treatment that addresses substance use produces measurable reductions in criminal behavior, but it also improves mental health and reduces physical health emergencies. That pattern is consistent with the syndemic model described above: the connection between drugs and crime runs through broader health and social functioning, so an intervention that improves that functioning moves several outcomes at once. For a counselor, the message is encouraging and specific. The work of treating a client's addiction is not separate from public safety. It is one of the more effective public safety interventions available.

This finding also reframes a debate that runs underneath much correctional policy: whether to prioritize punishment or treatment for drug-involved offenders. The diversion evidence does not claim that treatment is a lenient alternative that trades safety for compassion. It shows the opposite, that the treatment pathway produced fewer subsequent charges than incarceration did, alongside better health. For the practitioner, this is useful ammunition in the frequent situation of advocating for a client at sentencing, in a treatment-court staffing, or in a case conference where the default assumption is that incarceration is the serious response and treatment is the soft one. The data support presenting treatment as the more effective response to the drug-crime problem on its own terms, not as an act of mercy that the system tolerates. It is worth adding one honest caveat: these are average effects across large populations, and diversion is not appropriate for every case or every offense. The point is not that treatment should replace all sanctions, but that where the underlying driver is a substance use disorder, addressing that disorder is among the most reliable ways to reduce future crime.

Medications for Opioid Use Disorder in the Justice System

Few developments in the past two decades have done more to reframe the drug-crime relationship for opioid-involved clients than the evidence on medications for opioid use disorder, commonly abbreviated MOUD. These medications, methadone, buprenorphine, and extended-release naltrexone, were once controversial in correctional settings, where abstinence-only philosophies dominated and agonist medications were viewed with suspicion. The research of the past several years has made continued resistance difficult to defend on clinical grounds.

A 2024 systematic review and meta-analysis in The Lancet Public Health synthesized 126 studies, 47 of them randomized controlled trials and 79 observational, evaluating 18 different interventions delivered to people who use drugs during or after incarceration. The results for opioid agonist treatment were striking. Among people receiving this treatment in prison, the risk of death in custody was substantially lower, with a hazard ratio of 0.25 (95% CI 0.13 to 0.48). Even more consequentially for the drug-crime discussion, opioid agonist treatment continued in the first four weeks after release was associated with a large reduction in the risk of community death, with a risk ratio of 0.24 (95% CI 0.15 to 0.37). The same review found that therapeutic community interventions reduced re-arrest at six to twelve months, with an odds ratio of 0.72 (95% CI 0.55 to 0.95), and reduced reincarceration at

twenty-four months, with an odds ratio of 0.66 (95% CI 0.48 to 0.96) (Macdonald et al., 2024).

Real-world implementation confirms that these results are achievable at scale, not only in tightly controlled trials. Rhode Island became the first state in the nation to offer all three FDA-approved medications throughout its correctional system and to link released clients to community treatment. A retrospective cohort study followed 1,600 people released from the Rhode Island program between 2016 and 2018. Of these, 56 percent had been prescribed methadone, 43 percent buprenorphine, and 1 percent naltrexone. Post-release engagement in treatment was high: 73 percent at thirty days and 86 percent at twelve months. Twelve overdose deaths occurred during the year of follow-up, but only one occurred during the highest-risk first two weeks after release, a period when opioid overdose deaths ordinarily spike (Martin et al., 2023).

For the counselor working with justice-involved clients, this evidence carries a direct clinical implication. An opioid-dependent client who is stabilized on medication and then has that medication interrupted by arrest and incarceration does not simply return to baseline. Forced withdrawal lowers tolerance while leaving craving and the surrounding drivers of use intact, so the person who resumes use after release is at markedly higher risk of a fatal overdose than they were before. Advocating for continuity of medication across the jailhouse door, and for a warm handoff to community treatment at release, is one of the most concrete ways a practitioner can act on the drug-crime evidence base.

It also helps to be able to answer the objections that still circulate in correctional settings, because the counselor is often the person a skeptical officer, judge, or administrator turns to for a clinical opinion. The claim that agonist medication merely substitutes one addiction for another confuses physical dependence, a predictable and manageable pharmacological state, with addiction, a behavioral disorder defined by compulsive use and continued harm. A client stabilized on a therapeutic dose of methadone or buprenorphine is not intoxicated. That client can hold a job, care for children, and participate meaningfully in counseling, and is far less likely to die. The related worry about diversion of medication is real but manageable through supervised dosing and monitoring, and it does not begin to outweigh the mortality benefit demonstrated across dozens of studies. Being fluent in these distinctions allows the practitioner to protect a client's access to treatment at the exact moments, booking, sentencing, transfer, and release, when that access is most likely to be stripped away.

A practical corollary concerns naltrexone, the third medication and the one most often favored in abstinence-oriented programs because it is not itself an opioid. Extended-release naltrexone can be a reasonable choice for a motivated client who has already completed withdrawal, but it requires a fully opioid-free interval before the first injection, and it does not carry the same population-level mortality evidence that agonist treatments do. The counselor's role is not to prescribe, which is the physician's decision, but to make sure the choice of medication is driven by the client's clinical situation and preference rather than by institutional ideology, and to keep the conversation focused on what the outcome data actually show.

The Reentry Window: The First Two Weeks After Release

The single most dangerous period in the life of a drug-involved person in the criminal justice system is not during active addiction on the street and not during incarceration. It is the first two weeks after release. Understanding why illuminates the pharmacology, the psychology, and the systems failures that sit at the center of the drug-crime relationship.

The foundational study remains a 2007 analysis published in the *New England Journal of Medicine*, which followed 30,237 inmates released from Washington State prisons. The adjusted risk of death among former inmates was 3.5 times that of other state residents (95% CI 3.2 to 3.8). During the first two weeks after release, however, the risk of death climbed to 12.7 times that of other residents (95% CI 9.2 to 17.4), and the relative risk of death specifically from drug overdose during that window reached 129 (95% CI 89 to 186). The leading causes of death were drug overdose, cardiovascular disease, homicide, and suicide (Binswanger et al., 2007).

The mechanism is straightforward and tragic. Incarceration enforces a period of abstinence that lowers the body's tolerance to opioids. The person released after months or years away from regular use often returns to the same neighborhood, the same social network, and the same cues that triggered use before, but attempts to consume the dose their addiction remembers rather than the dose their body can now survive. The result is a wave of overdose deaths concentrated in the days immediately following release.

A 2021 study in *The Lancet Public Health* using a self-controlled case series design quantified how sharply and how briefly this risk spikes. Non-fatal overdose risk in the one-to-two weeks following release from prison rose with an adjusted incidence rate ratio of 2.92 (95% CI 2.37 to 3.61). Crucially, the same analysis showed that being on medication for opioid use disorder cut overdose risk substantially, with adjusted incidence rate ratios ranging from 0.33 to 0.41 during periods of treatment (Keen et al., 2021). In other words, the intervention that closes the reentry window is precisely the continuity of medication described in the previous section.

For practitioners, the reentry window converts an abstract theory about drugs and crime into an urgent, time-limited task. Discharge and reentry planning is not paperwork to be completed whenever convenient. It is a clinical intervention whose timing can determine whether a client lives. Naloxone in the client's hands at release, an appointment scheduled within days rather than weeks, and, wherever possible, medication that is never interrupted are the practical expression of everything the drug-crime research teaches.

Tolerance education belongs in every reentry conversation with an opioid-involved client, and it should be concrete rather than abstract. A client who used a given quantity daily before incarceration frequently believes that returning to that quantity will feel normal. The counselor's task is to make the biology vivid: months without regular use have reset the body, the old amount is now potentially lethal, and the first use after release is the single most dangerous dose the person will take. Pairing that message with take-home naloxone, and with instruction to a family member or roommate on how to use it, turns a statistic into a survival plan. Where a client is leaving custody without medication already arranged, the practitioner should treat same-week linkage to a prescriber as the highest priority in the plan, above nearly every other reentry task, because the window in which it matters most is measured in days.

What Works in Correctional Treatment: Risk, Need, and Responsivity

If treatment reduces crime, the next question is which treatment, delivered to whom, and in what dose. The dominant framework in correctional treatment for the past three decades has been the Risk-Need-Responsivity model, usually shortened to RNR. Its three principles are simple to state. The risk principle holds that the intensity of intervention should match the client's risk level, with the most intensive services reserved for higher-risk clients. The need principle holds that treatment should target criminogenic needs, the changeable factors statistically linked to reoffending, such as antisocial thinking, antisocial peers, and substance use, rather than needs that matter for wellbeing but do not drive crime. The responsivity principle holds that services should be delivered in a style and mode matched to the client's learning style, motivation, and abilities.

The recent evidence on RNR is more nuanced than its widespread adoption might suggest, and honesty about that nuance serves practitioners better than slogans. A 2023 meta-analysis of randomized controlled trials of community correction programs, provocatively titled around the question of whether RNR principles are "golden," examined 25 qualified studies contributing 35 independent effect sizes. It reached two findings worth holding together. First, full participation in a program significantly reduced the recidivism rate, confirming that engaged, completed treatment works. Second, and more sobering, interventions that fully followed RNR design principles achieved results similar to those that did not, leading the authors to conclude that strict adherence to the RNR template is not, by itself, the deciding factor (Duan et al., 2023).

That result should not be read as evidence that structured treatment fails. It should be read as evidence that dose and engagement may matter as much as adherence to any particular model. This reading is reinforced by a 2019 Cochrane systematic review of interventions for drug-using offenders with co-occurring mental health problems, which pooled 13 randomized controlled trials involving 2,606 participants. Therapeutic community interventions, compared with treatment as usual, were associated with less subsequent criminal activity, with a risk ratio of 0.67 (95% CI 0.53 to 0.84), and a lower likelihood of return to prison, with a risk ratio of 0.40 (95% CI 0.24 to 0.67), both rated as moderate-certainty evidence (Perry et al., 2019).

For the practitioner, the applied lesson is threefold. Match intensity to risk, so that limited treatment slots go to the clients most likely to reoffend rather than to the lowest-risk clients who are easiest to work with. Target the criminogenic needs that actually drive this client's offending rather than defaulting to a standard curriculum. And attend relentlessly to engagement and completion, because a fully participated, well-delivered program is where the measurable reductions in crime actually come from.

The risk principle deserves particular emphasis because it is the one most often violated in practice, and violating it can actively backfire. Intuition pushes programs toward their most cooperative, lowest-risk clients, the people who show up, engage easily, and make staff feel effective. Yet the evidence indicates that intensive intervention delivered to low-risk clients produces little benefit and can even worsen outcomes, in part by disrupting the prosocial ties, employment, and stability that were already protecting them, and by grouping them with higher-risk peers whose influence runs the wrong way. Reserving the most intensive services for higher-risk clients is therefore not only a matter of efficient resource allocation. It is a clinical safeguard. A practitioner who understands this will resist the natural drift toward over-treating the easy cases and under-serving the hard ones, and will use a validated risk assessment rather than gut impression to decide who receives what.

The need principle carries an equally practical caution. Clients present with many genuine problems, low self-esteem, vague distress, physical health complaints, that deserve compassion but are not the factors statistically driving their offending. Spending a limited course of treatment on needs that do not reduce recidivism, however sympathetic, tends to leave the criminogenic drivers untouched. This does not mean ignoring a client's suffering. It means keeping the treatment plan honest about which targets, antisocial thinking, antisocial associates, substance use, and the like, are the ones the evidence connects to future crime, and making sure those targets are actually addressed rather than crowded out.

Criminal Thinking and the Evidence for Cognitive Programs

Cognitive-behavioral programs that target criminal thinking are among the most widely used interventions in correctional settings, and this course has already introduced the concept of criminal thinking through the veteran latent-class research (Timko et al., 2022). The strongest single program in terms of adoption is Moral Reconnection Therapy, a structured, workbook-based intervention that moves participants through stages of moral and cognitive development. The evidence on it rewards a careful, two-sided reading.

The most cited meta-analysis of Moral Reconnection Therapy pooled 33 studies and 30,259 offenders. It found an overall effect size of r equal to .16, described by the authors as a small but important effect on recidivism. The effect was larger for adult than juvenile offenders, larger in institutional than community settings, and larger when studies used randomization. Notably, the effect size was smaller in studies published by the owners of the program than in independent studies, and smaller in studies published after 1999, cautions that a discerning practitioner should keep in mind (Ferguson & Wormith, 2013).

More recent and more rigorous evidence tempers the enthusiasm. A 2022 randomized controlled trial, the first true RCT of the program, studied 341 justice-involved adults in mental health residential treatment, the same population featured in the criminal-thinking research cited earlier in this course. The rate of rearrest or new charges within one year did not differ significantly between usual care at 20.2 percent and the group offered the added intervention at 24.9 percent, with an odds ratio of 1.14 (95% CI 0.67 to 1.94). A key reason emerged in the engagement data: only 37 percent of those assigned to the program received even a minimum dose. Among the subgroup that did engage, per-protocol analysis showed greater improvement on criminal associates, days incarcerated, legal problem severity, and alcohol use severity (Blonigen et al., 2022).

The lesson for practice is not that cognitive programs do not work. It is that they work through engagement, and that assignment without engagement produces little. A program delivered on paper, or completed by a minority of those referred, will not reproduce the average effects reported in older literature. This is the same lesson the RNR evidence teaches from a different angle. Structured cognitive treatment has genuine value, but only when the practitioner attends to whether the client is actually present, participating, and completing, rather than merely enrolled.

There is also a deeper lesson in the gap between compliance and change. A client can move through the workbook, give the expected answers, and earn the completion certificate without any genuine shift in how he construes his choices, his victims, or his options. Cognitive work targets exactly the distortions this course has described, minimization, entitlement, the victim stance, and a hostile reading

of others' intentions, and dislodging those patterns requires the client to examine his own thinking rather than perform agreement. This is why the manner of delivery matters as much as the curriculum. A facilitator who builds enough of a working alliance that the client will risk honesty, who uses real examples from the client's own life rather than generic scenarios, and who treats resistance as information rather than insubordination is far more likely to produce the internal change that the completion checkbox only approximates. The evidence that engagement drives outcomes is, at bottom, evidence that change is an inside job the client has to choose.

It also matters that cognitive programs are not a stand-alone cure to be delivered in isolation. The same clients who need help with criminal thinking frequently carry untreated substance use disorders, trauma histories, and unstable living situations, and a cognitive intervention layered on top of those unaddressed conditions will underperform. The most defensible use of cognitive programming is as one targeted component within a plan that also secures medication where indicated, addresses trauma, and attends to the syndemic cluster, rather than as a substitute for that broader work.

Stimulants and the Limits of Pharmacology

The evidence on medications for opioid use disorder is so encouraging that it can create a false impression that pharmacology has solved the treatment problem. For the growing share of justice-involved clients whose primary drug is a stimulant, methamphetamine or cocaine, that impression is dangerously wrong. There is no FDA-approved medication for stimulant use disorder, a fact a 2024 Cochrane review states plainly at the outset of its analysis of 64 randomized controlled trials involving 8,241 participants (Minozzi et al., 2024).

This gap matters enormously for the drug-crime relationship, because stimulant use is rising in exactly the populations that cycle through the criminal justice system, and the counselor cannot reach for a methadone-equivalent solution. What the evidence does support is a behavioral intervention. Contingency management, which provides tangible incentives such as vouchers or prizes contingent on verified drug-negative test results, has the strongest evidence of any treatment for stimulant use disorder. A 2021 systematic review and meta-analysis in JAMA Network Open pooled 157 studies, 402 treatment groups, and 15,842 participants comparing treatments for cocaine use disorder. Only contingency management programs were significantly associated with an increased likelihood of a cocaine-negative test result, with an odds ratio of 2.13 (95% CI 1.62 to 2.80). It was the sole treatment category with a consistent, objective benefit across sensitivity analyses (Bentzley et al., 2021).

The broader Cochrane review reinforced the value of psychosocial treatment while keeping expectations realistic. Psychosocial interventions reduced the dropout rate, with a risk ratio of 0.82 (95% CI 0.74 to 0.91) rated as high-certainty evidence, and probably increased continuous abstinence at the end of treatment, with a risk ratio of 1.89 (95% CI 1.20 to 2.97) rated as moderate-certainty. The benefit at the longest follow-up, however, was uncertain, a reminder that gains achieved in treatment require ongoing support to sustain (Minozzi et al., 2024).

For the practitioner, the stimulant evidence carries two applied messages. First, do not wait for a pill. The intervention with the best evidence for stimulant use disorder is behavioral, deliverable now, and unfortunately still underused because incentive-based programs sometimes meet moral resistance from staff and funders. Second, calibrate hope honestly. Contingency management moves the odds of a

drug-negative result substantially, but relapse remains common, and the counselor who frames stimulant recovery as a long process punctuated by setbacks will serve clients better than one who treats a single relapse as failure.

It is worth naming why contingency management remains underused despite being the best-supported behavioral treatment in this space, because the practitioner will encounter the resistance directly. The intervention rewards drug-negative tests with vouchers, small prizes, or escalating draws, and to some staff and funders this feels like paying people to do what they should do anyway. The evidence answers the objection on its own terms: the incentives are modest, they are far cheaper than another incarceration, and they work by engaging the same reward circuitry that stimulants hijack, giving the client something tangible to move toward while the natural reward system slowly recovers. A counselor who understands the rationale can advocate for these programs and can deliver the behavioral principles, immediate reinforcement, frequent monitoring, and gradual shaping of longer abstinence, even inside a program that has not adopted a formal incentive structure.

A further clinical reality is that stimulant and opioid use increasingly travel together, whether through deliberate co-use or through a contaminated drug supply. A client whose criminal history is tied to methamphetamine may also be at risk from fentanyl exposure, and the reentry and overdose precautions described earlier apply to that client as well. Assessment should therefore ask about every substance, not only the one that appears in the charging documents, because the drug named in the arrest record is often not the one most likely to cause a fatal outcome.

Trauma at the Root: Adverse Childhood Experiences

Behind a substantial fraction of the clients described throughout this course sits a history of childhood trauma that predates both the substance use and the offending. Recognizing this is not an exercise in excusing criminal behavior. It is a matter of understanding the developmental pathway that produced the adult in the room, because that pathway points toward what treatment must address.

The connection between adverse childhood experiences and substance use disorder is well established. A 2021 scoping review synthesized 12 studies and found a higher prevalence of adverse childhood experiences in people with substance use disorder than in the general population, along with a positive association between such experiences and both the development and the severity of substance use disorder across adolescence and adulthood (Leza et al., 2021). Trauma, in short, raises the odds of developing an addiction and raises the severity of the addiction that develops.

The pathway extends into criminal justice involvement. A 2021 study published in *Child Abuse and Neglect* examined 417 detained youth and found that cumulative childhood adversity significantly predicted reoffending among both girls and boys. Importantly, the analysis identified a significant indirect effect: adverse childhood experiences predicted reoffending in part through substance use severity. That is, trauma helped drive substance use, and substance use in turn helped drive reoffending, a chain that maps directly onto the integrated and syndemic models discussed in this course. The same study found that girls reported higher exposure to adversity and higher substance use than boys, and that gender significantly shaped these relationships (Weber & Lynch, 2021).

For practice, the trauma evidence reframes what looks like resistance, hostility, or manipulation in a

justice-involved client. Behaviors that correctional environments read as antisocial are frequently trauma adaptations that once served a protective function. Trauma-informed care does not mean lowering expectations or abandoning accountability. It means recognizing that punishment layered onto an untreated trauma history tends to reinforce the very cycle it intends to interrupt, and that treatment which addresses the trauma alongside the substance use reaches a root that a purely behavioral or purely punitive approach leaves untouched.

Applying this in a correctional or reentry setting requires attention to how the environment itself can retraumatize. Searches, restraint, isolation, and the loss of control that define incarceration can echo earlier experiences of powerlessness and abuse, so a client may arrive at a counseling session already activated by the day's events. The practical response is not to treat every difficult interaction as pathology but to build predictability into the work: explaining what will happen and why, offering choices wherever the setting allows them, and avoiding unnecessary confrontation that reads to a traumatized nervous system as threat. Screening for trauma history should be routine rather than incidental, and it should be paired with a plan for what the program will do with the information, since asking a client to disclose trauma and then offering nothing in response can do more harm than not asking at all. The goal is a treatment relationship that feels safe enough for the underlying material to be worked with rather than continually defended against.

Gender and the Drug-Crime Relationship

The theoretical models in this course were largely developed on and validated with male samples, and much of the criminal justice system was built around men, who make up the large majority of the incarcerated population. Yet the fastest-growing incarcerated population is women, and the pathway that brings women into the justice system through substance use differs in ways that change what effective treatment looks like.

Women in the justice system are characterized by significant histories of trauma, poor mental health, and high rates of substance use disorders, and these factors are more tightly interwoven for women than the traditional models assume. A 2022 systematic review of post-release programs for women exiting prison with substance use disorders examined 12 studies involving 3,799 women. Recidivism was significantly reduced in 5 of the programs, or 42 percent, while substance use was significantly reduced in only 1 program, or 8.3 percent. The programs that succeeded shared identifiable attributes: they were transitional and gender-responsive in design, they provided individualized support, and they delivered substance-related therapy alongside mental health and trauma treatment, with continuity of care from prison to the community (Edwards et al., 2022).

The value of a genuinely gender-responsive approach is illustrated by a randomized controlled trial of 115 women in prison that compared a gender-responsive treatment program, built on curricula addressing trauma and women's recovery, against a standard prison therapeutic community. Women in the gender-responsive condition remained in residential aftercare longer, 2.6 versus 1.8 months, and were significantly less likely to be reincarcerated within twelve months of parole, 31 percent versus 45 percent, a 67 percent reduction in the odds of return. They also showed greater reductions in drug use (Messina et al., 2010).

For the practitioner, the gender evidence cautions against applying a one-size-fits-all model drawn

from male samples to female clients. For many justice-involved women, substance use functions as a means of coping with trauma and operates within relationships in ways that a standard, confrontation-oriented correctional program can miss or worsen. Treatment that addresses trauma, that works with rather than against the client's relational world, and that maintains continuity across the reentry transition produces measurably better outcomes for this population.

Two further considerations sharpen the point for everyday practice. The first is caregiving. A large share of justice-involved women are mothers, often the primary or sole caregivers for their children, and the disruption of incarceration and reentry falls on the whole family. A treatment plan that ignores the client's role as a parent, the practical demands of reunification, and the motivation that children can provide misses one of the strongest levers available. The second is the design of the treatment setting itself. Confrontational, hierarchical program models developed on male populations can replicate for a traumatized woman the dynamics of past abusive relationships, provoking withdrawal or dropout that the program then misreads as lack of motivation. Gender-responsive models succeed in part because they are built on safety, connection, and collaboration rather than confrontation, which is not a matter of being softer but of removing an obstacle that would otherwise defeat the work. For a practitioner who cannot change the program model, the same principles can still shape the individual relationship, offering predictability, respecting the client's relational reality, and refusing to interpret trauma responses as defiance.

Assessment in Practice: Making the Evidence Usable

Everything reviewed in this supplement converges on a single practical demand at the point of first contact: assessment must be broad enough to capture the cluster of factors that actually drive a given client's substance use and offending. The crime-specific research shows that the relevant question is not simply whether the client uses drugs but which substances, in what pattern, and in connection with which kinds of behavior. The syndemic research shows that housing, mental health, trauma, and social network are not background details but active drivers. The reentry research shows that timing and recent custody status can carry life-or-death implications. A standard intake that records a primary drug of choice and a criminal charge and stops there will miss most of what determines the outcome.

A more useful assessment moves across several domains without treating any as an afterthought. It asks about each substance the client has used and the role each has played, rather than settling on a single label. It maps the criminogenic needs that the treatment will actually target, distinguishing the changeable factors linked to reoffending from the many real problems that do not drive crime. It screens for trauma and for co-occurring mental health conditions, because these shape both the pathway in and the response to treatment. It captures the social and material context, housing, employment, family, and peer network, that the syndemic model identifies as part of the cluster. And it attends to where the client sits in the justice cycle, because a client two weeks out of custody presents a different and more urgent risk profile than one who has been in the community for a year.

The point of this breadth is not to produce a longer file. It is to match the intervention to the person. An assessment that surfaces an untreated trauma history, a stimulant problem the charge did not mention, and a reentry date two weeks away leads to a very different and far more accurate plan than one that records only what the paperwork already said. Assessment, done this way, is where the theoretical models in this course become a concrete map of what to do next.

Continuity of Care Across the System

A recurring theme across the strongest evidence in this supplement is that fragmentation kills, sometimes literally. Medication that works in prison fails to protect anyone if it stops at the gate. A treatment gain achieved in a residential program erodes if nothing catches the client on the other side. The gender-responsive review found that the programs which reduced recidivism were precisely those that maintained continuity of care from prison to the community, and the reentry research shows that the highest-risk window opens at exactly the moment when responsibility for a client is being handed from one system to another, or dropped entirely.

For the practitioner, continuity is less a philosophy than a set of concrete handoffs that either happen or do not. It means an actual appointment on an actual date before the client leaves custody, not a phone number to call. It means medication that is arranged to continue without a gap, rather than a prescription that lapses on the day of release. It means records and a treatment plan that travel with the client, so the receiving provider does not start from zero. And it means, wherever possible, a warm introduction to the next clinician rather than a cold referral, because a client in the disorienting first days of reentry will follow a relationship far more reliably than an instruction.

Building these handoffs is often unglamorous coordination work, phone calls, scheduling, paperwork, and persistence against systems that are not designed to cooperate. But the evidence is clear that this coordination is not secondary to treatment. For a justice-involved client with a substance use disorder, the seams between systems are where outcomes are won or lost, and the counselor who treats those seams as part of the clinical work is acting on the best available evidence.

Accountability and Compassion: The Practitioner's Stance

Working at the intersection of addiction and crime can pull a practitioner toward one of two distortions. One is a purely punitive stance that treats the client as a wrongdoer whose addiction is an excuse, and that reads every relapse or evasion as proof of bad character. The other is a stance so focused on the client's history of trauma and disadvantage that it loses sight of the real harm the person's behavior has caused, including to victims and to the client's own life. The evidence reviewed here supports neither extreme, and points instead toward a stance that holds accountability and compassion together.

Accountability, understood clinically, is not punishment. It is the expectation that the client is capable of change and responsible for participating in it, an expectation that itself communicates respect. The cognitive and correctional treatment research is built on the premise that thinking and behavior can change, and change requires the client to do real work. At the same time, the trauma, syndemic, and gender research makes clear that behavior which looks like defiance or manipulation frequently has roots in experiences the client did not choose, and that a plan which ignores those roots will not hold. Compassion, understood clinically, is not lowered expectations. It is an accurate understanding of what the person is up against, used to build a plan that can actually work.

Held together, these commitments describe a practitioner who can say to a client, in effect, that the past explains a great deal and excuses nothing, that change is both expected and possible, and that the

work of getting there will be shared. That stance is not a personality trait. It is a skill, informed by exactly the kind of evidence this supplement has assembled, and it is the ground on which effective work with justice-involved clients is built.

From Theory to Practice: Using the Models in Real Work

The theoretical models that open this course, the psychopharmacological, economic-motivation, systemic, and common-cause explanations of the drug-crime relationship, can feel abstract next to the concrete pressures of casework. The research assembled in this supplement is meant to close that gap, and a few integrating principles tie it together.

First, the drug-crime relationship is specific, not global. Which substance, which crime, and which surrounding conditions all shape both the risk picture and the intervention, so assessment must be multidimensional and treatment must be individualized. Second, treating substance use genuinely reduces crime, but it does so through broader improvements in health and functioning, which is why the most effective interventions address the whole syndemic cluster rather than the addiction alone. Third, the pharmacological tools are powerful but uneven: for opioids, medication continuity across incarceration and reentry can be lifesaving, while for stimulants the best evidence points to behavioral interventions the counselor can deploy today. Fourth, structured treatment works chiefly through engagement and completion, not through the label on the program, so attention to whether the client is actually participating matters as much as the choice of curriculum. Fifth, trauma and gender sit beneath the surface of many cases and reshape what effective care requires.

None of this displaces the theoretical frameworks this course teaches. It grounds them. A practitioner who understands both why substance use and crime travel together and what the current evidence says about interrupting that partnership is equipped to do work that is at once more compassionate and more effective, and, as the reentry research makes unmistakably clear, sometimes lifesaving.

The relationship between drug use and crime is complex. There are several explanatory models for the relationship between alcohol/drug use and crime. (1) Drug use causes crime, (2) crime causes drug use, (3) drug use involves a third variable, and (4) there is a reciprocal relationship between drugs and crime.

In thinking about these relationships, several factors need to be kept in mind.

1. The deaths related to tobacco use and overeating/diet/activity far exceed the number of deaths from alcohol and illicit drugs use. These deaths are directly related to the epidemic of obesity and diabetes.
2. Legal pharmacology has vastly improved the lives of more people than illegal pharmacology has destroyed. This has been primarily due to the sophistication of drugs such as:
 - a. pain killers
 - b. anti-anxiety agents
 - c. anti-psychotics
 - d. anti-depressants.
3. Most traditional psychological, sociological, and criminological theories either assume a sober individual or group of individuals or they don't consider any level of alcohol or drug induced impairment.
4. Many drug crimes involve illegally obtained or ingested legally prescribed drugs. This involves *diversion*. This unlawful channeling of regulated pharmaceuticals from legal sources can occur along all points in the drug delivery process. Diversion typically occurs in a number of ways:
 - a. The illegal sale of prescriptions by physicians and pharmacists.
 - b. "Doctor shopping" by individuals who visit multiple physicians to obtain prescriptions.
 - c. Theft, forgery, or alteration of prescriptions by patients.
 - d. Robberies and thefts from manufactures, distributors, and pharmacies.
 - e. Thefts of prescription pads and institutional drug supplies.
 - f. Residential burglaries.
 - g. Cross-border smuggling by traffickers and tourists.
 - h. Medicine cabinet thefts by housekeepers, home repair personnel, and family members, and
 - i. Wholesale and retail shipments purchased over the internet.

5. Though rare, a legally prescribed incorrect prescription can lead to crime. An overdose or underdose of a drug can lead to violent behavior and criminal acts.

This can occur through:

- a. Patient non-compliance with recommended medications.
 - b. A physician stopping a prescription.
 - c. A physician recommending too much or not enough of a medication.
6. Attempts to control drugs and alcohol through drug legislation may increase crime. Prohibition has traditionally led to violence and organized crime.
 7. Attempts to control drugs, because they are related to crime, may be a method to control unruly minorities and immigrants. For example, at the turn of the twentieth century the New York state prisons contained large numbers of Irish immigrants convicted of public drunkenness.

Theoretical Issues

One causal model posits that alcohol and drug use lead to crime because of the psychopharmacological properties of drugs, the economic motivation to get drugs, or the systemic violence associated with the illegal drug market. The *psychopharmacological* model proposes that the effects of intoxication (including disinhibition, cognitive-perceptual distortions, attention deficits, bad judgment, and neurochemical changes) cause criminal (especially violent) behavior. In addition, chronic intoxication may also contribute to subsequent aggression and crime, due to factors such as withdrawal, sleep deprivation, nutritional deficits, impairment of neuropsychological functioning, or enhancement of psychopathologic personality disorders. The *economic motivation model* assumes that drug users need to generate illicit income to support their drug habit. Thus, they engage in crimes such as robbery, burglary, and prostitution to get drugs or the money to buy them.

During the 1980s, attention began to focus on the *systemic model*, which posits that the system of drug distribution and use is inherently connected with violent crime. Systemic types of crimes surrounding drug distribution include fights over organizational and territorial issues, enforcement of rules, punishments of and efforts to protect buyers and sellers, and transaction-related crimes (such as robberies of dealers or buyers, assaults to collect debts, and resolution of disputes over quality or amount). In addition, there is often third-

party violence, such as bystander shootings or assaults on prostitutes who sell drugs. Further, drug markets can create community disorganization, which, in turn, affects the norms and behaviors of individuals who live in the community. Such community disorganization may be associated with increases in crime that are not directly related to drug selling.

Crime leads to substance use

This model is based on the assumption that deviant individuals are more likely than nondeviant individuals to select or be pushed into social situations and subcultures in which heavy drinking and drug use are condoned or encouraged. According to this explanation, involvement in a criminal subculture provides the context, the reference group, and the definitions of a situation that are conducive to subsequent involvement with drugs. For example, rather than the need for a drug compelling an individual to commit robbery, the income generated from robbery might provide the individual with extra money to secure drugs and therefore place the individual in an environment that supports drug use. It has also been suggested that several aspects of the professional criminal lifestyle are conducive to heavy drinking and drug use, such as working periodically, partying between jobs, being unmarried, and being geographically mobile. In addition to subcultural and lifestyle explanations, it has been proposed that deviant individuals may use drugs in order to self-medicate or to give themselves an excuse to act in a deviant manner.

It is also possible that both of the above models are correct and that the relationship between substance use and crime is reciprocal. That is, substance use and crime may be causally linked and mutually reinforcing and, thus, drinking and drug use may lead to more criminal behavior and criminal behavior may lead to more drinking and drug use. For example, when an addict has an easy opportunity to commit robbery, he or she will commit it and then buy drugs with the money gained, not out of a compulsion but rather as a consumer expenditure. Conversely, when the need for drugs is great, users will commit crimes to get money to buy drugs.

The relationship is due to common causes

The common cause model postulates that substance use and crime do not have a direct causal link. Rather, they are related because they share common causes (such as genetic or temperamental traits, antisocial personality disorder, parental alcoholism, and poor relations with parents). For example, young males account for a disproportionate share of crime and are also the heaviest drinkers and drug users; being male is the common link (whether due to

biological or social factors). In addition, subcultural norms may reinforce both criminal behavior and substance use. That is, certain subcultures (e.g. youth gangs) may promote both crime and drug use as proof of masculinity, which would spuriously inflate the relationship between these two behaviors.

In addition to such individual-level and interpersonal-level influences, drug use and crime may have common environmental and situational causes. Research shows, for example, that rates of violent crime and delinquency are high in neighborhoods that are poor, densely populated, racially segregated, and composed of a transient population. Social disorganization and lack of social capital appear to be the crucial mechanisms linking these structural characteristics to crime. Exposure to drugs and sustained drug use are also more common among residents of disadvantaged and disorganized neighborhoods, probably because the illicit drug market is concentrated in such communities. Available research does not indicate the exact nature of the relationship between drug use, crime, and social deprivation and disorder, although it is fairly clear that these factors interact in many poor urban environments to create a spiral of decline in which each problem is amplified over time.

Certain types of places and situations also generate both greater rates of drug use and crime. For example, crime rates are high when and where people (especially young males) are drinking, such as at bars and sports stadiums, and at night and on weekends. Proponents of the routine activities perspectives argue that bars are crime hot spots because they bring together motivated offenders and suitable targets in the absence of effective guardianship. Thus, situational factors such as location, access, and type of clientele contribute to a spurious relationship between alcohol use and crime.

In the following section, the empirical data is examined that support or refute these theoretical models.

Empirical Research on the Association between Drug Use and Crime

Degree of association

In a meta-analysis of cross-sectional studies examining the alcohol-violence relationship, researchers found significant, although very modest, effect sizes for both acute and chronic associations. They also found that the associations between alcohol and violent crime were weaker than those between alcohol and nonviolent crime. The relationships were stronger in criminal and psychiatric samples than in general population samples. Further, when studies controlled for confounding variables, the alcohol-violence correlation was reduced substantially. Thus, it was concluded that the association between alcohol and violence probably represents a relationship that is confounded by other factors such as sociodemographic and personality characteristics. The meta-analysis identified weak associations between alcohol use and violence across time: the average correlation between Time 1 alcohol use and Time 2 violence was 0.01, and between Time 1 violence and Time 2 alcohol use, 0.09 (suggesting that violence was more strongly related to later alcohol use than alcohol use was to later violence).

A similar meta-analysis on marijuana use and delinquency found that individuals who used marijuana were more likely than those who did not to concurrently engage in nonviolent delinquency. However, prior marijuana use did not increase the risk of later violent or nonviolent delinquency. On the other hand, prior delinquency was related to later marijuana use. The strongest relationship between marijuana and aggression occurred in early adolescence, but the analysis did not find a consistent relationship between marijuana and aggressive delinquency after early adolescence. Researchers concluded that use of marijuana does not establish a developmental trajectory to aggressive behaviors.

Studies examining the association between various stages of drug use and delinquency have reported a high degree of synchrony in the progression. Abstainers and alcohol-only users are most likely to be nondelinquents; compared with only alcohol users, those who use both alcohol and marijuana are more likely to be delinquent; and those who progress to the use of other drugs, compared with those who do not, are most likely to also progress to involvement in more serious forms of delinquency. Yet, these types of analyses have also indicated that there are several heterogeneous groups of adolescents; for some, drug use and delinquency are closely related, and for others they are independent of each other. In addition, these typological studies indicate that the strength of the associations between substance use and delinquency depends on the severity of the delinquency and the types of substances used, as well as

the age, sex, and nature of the sample examined. Further, some studies report an asymmetry in the relationship. Researchers found that delinquency increased as drug use became more serious, but that drug use was not related to seriousness of offenses. Among both males and females, it was found that many serious offenders were not serious drug users and that most did not have drug problems. In contrast, as many as two-thirds of the male problem drug users were also serious offenders. It was argued that the fact that most serious delinquents are not serious drug users calls into question the existence of a single-problem behavior syndrome. In contrast, other researchers found that the majority of serious delinquent were also serious drug users, whereas only one-third of the serious drug users were also serious delinquents. The difference in findings between these two studies probably reflects variations in the nature of samples and historical changes in drug use.

Studies of adult populations also support a progressive relationship between frequency of drug use and amount of crime, especially during periods of addiction versus nonaddiction (see the section on the economic motivation model). For example, researchers found that among street opiate users, daily users, compared with nondaily users, committed more drug-related and nondrug-related crimes. In addition, it was found that heroin users, compared with other criminal offenders, committed more crimes and more serious types of crimes and were involved in a greater variety of offenders.

In examining the degree of association between crime and drug use, it must be recognized that only a small group of individuals are criminal offenders and heavy drug users. For example, in a notionally representative sample of youths, it was found that less than 5 percent of all youths reported committing serious crimes and using hard drugs. This small group accounted for approximately half or more of all serious offenses and 60 percent of all occasions of hard drug use. Similarly, among street opiate users, criminal offenders who committed at least one crime per week also committed the majority of all crimes, regardless of type. It was found that 254 crack-using youths in Miami accounted for more than 200,000 criminal offenses in 1 year. It should be noted, however, that 61 percent of these offenses were drug related (e.g., drug possession and distribution).

Statistics on the rates of alcohol use by offenders at the time of an offense provide strong support for the alcohol-violence relationship. Although the rates vary greatly across studies, they generally indicate that more than half of all homicides and assaults are committed when the offender, victim, or both have been drinking. About 40 percent of adults in local jails and State prisons in 1996 reported committing a violent crime, and about one-third of that group reported committing a property crime while drinking. In one study, however, though more than 50 percent of the assaultive offenders reported drinking at the time of their offences, 59 percent of those drinking did not think that drinking was relevant to

the commission of the crime. In a study of incarcerated offenders, it was concluded that it was acute episodes, rather than chronic patterns of alcohol use, that better predicted violent offending. Yet, a recent study found that although usual drinking pattern was not related to the prevalence of assault, once other moderating variables were controlled, usual drinking pattern and acute use of alcohol preceding an assault were both independently related to frequency of assault.

In 1996, more than one-third of jail inmates reported that they were under the influence of drugs at the time of their offense. The primary drugs were marijuana/hashish and cocaine/crack. Among local jail inmates in 1996, 60 percent were under the influence: of alcohol only (25 percent), drugs only (20 percent), or both (16 percent) at the time of their offense. The overall percentages were the same for property and violent crimes, although more violent crime than property crime was committed under the influence of alcohol alone (27 percent versus 18 percent), and more property crime than violent crime was committed under the influence of only drugs (21 percent versus 14 percent). Based on DUF data, it was reported that the relationship between arrests for aggressive crime and substance use was in the opposite direction for alcohol compared with illicit drugs. Arrests for aggressive crimes were more strongly related to reports of frequent alcohol use than to testing positive for illicit drugs. In fact, persons who tested positive for illicit drugs were less likely to be involved in aggressive crime than those who tested negative. It was found that 53 percent of State prison inmates in Massachusetts reported that their drug use played a significant role in the commission of the crime for which they were incarcerated. Further, almost all the inmates had been incarcerated at some time for a crime related to drug use.

Across various cities in the United States, about one-fourth to one-half of all homicides are drug related. Drug-related homicides appear to involve young (late teens through twenties) men, especially African-Americans and Hispanics. Further, about half of all victims of homicide have drugs (usually cocaine or a cocaine metabolite) in their body. It was found that about one-fifth of all homicides were reported to be related to alcohol use, although in about half of these cases, the respondent was also high on another drug (usually marijuana). It was found that variations exist across cities in terms of increases and decreases. It was concluded that homicide rates from 1985 through 1989 are not associated with rates of crack use and crack distribution and that the association between crack use and violence varies by location.

Victimization studies also provided empirical support for the alcohol-violence relationship, although the rates vary considerably. A study in Thunder Bay, Canada, showed that 54 percent of all violent incidents (which included nonserious types of violence such as pushing and shoving) were alcohol-related.

In contrast, data from NCVS indicate that only 28 percent of all violent crimes are alcohol related.

Gender, age, and ethnic differences in the nature of the drug-crime relationship have been observed. Rates of alcohol-related violent offenses appear to be higher for males than for females and highest to the 20- to 30- year – old age group, as compared with younger or older samples. Gender by age interactions are also noteworthy. Although some research indicates that drug-related violence is increasing for women, there is debate as to whether rates are actually increasing or whether official labeling of females is increasing. In a recent study of arrestees in California, gender was not a significant predictor of violent offenses when alcohol and drug use and demographic variables were controlled. Further, this study found no significant differences between men and women in the proportion charged with violent, drug-related, or alcohol-related offenses.

The data on ethnic differences in the drug-crime association are inconsistent and indicate complex gender-by-ethnicity interactions. One study reported by more males than females, and more whites than blacks, were under the influence of alcohol at the time they committed a homicide. In contrast, the rate of those under the influence of illicit drugs was consistent across genders and races. Another study identified a moderating effect of ethnicity on the drug-crime relationship among male arrestees in San Antonio. Whites were more likely to be involved in aggressive crimes than Mexican-Americans. Further, the combined use of alcohol and drugs was more strongly associated with aggressive crimes for Mexican-Americans than for whites, whereas the use of alcohol alone was more strongly associated for whites. For both whites and Mexican-Americans, heavy drinkers were just as likely to commit property crimes as violent crimes. Although several researchers have found ethnic differences in the association between drug use and crime, others have not.

Research on arrested adolescent offenders indicates that they also report being under the influence of alcohol and drugs when they commit crimes. In 1993, 8 percent and 10 percent, respectively, of all youths in custody in State institutions reported that they were under the influence of only alcohol when they committed a violent or a property crime. Similarly, 12 percent committed a violent offense and 17 percent a property crime while under the influence of only drugs. Approximately one-fourth committed property or violent crimes while under the influence of both drugs and alcohol.

In contrast, data from community samples of adolescents do not provide strong support for a direct association between alcohol/drug use and violence. In a national sample of adolescents, researchers examined self-reports of the use of alcohol and drugs immediately prior to commission of index offenses. They found no relationship between acute drug use and property or violent crime. For

alcohol, however, they found a definite relationship for sexual assaults and a probable relationship for aggravated assaults. However, the association between alcohol use and violent crime was stronger in young adulthood than in adolescence, suggesting that the nature of the relationship may change over the life course. After a review of the literature on alcohol, drug, and violence among youths, it was concluded that there was little evidence that substance use makes an independent contribution to adolescent violence.

In addition to individual-level analyses, support for an alcohol-violence association comes from macro-level studies of the relationship between alcohol availability and rates of violence. Rates of homicide and other forms of violence have been related to alcohol availability and per-capita consumption in international as well as in U.S. State comparisons, although the strength of the relationship is reduced when other variables, such as poverty, are controlled. Further, efforts to reduce drinking (e.g., by increasing the tax on alcohol) have been shown to decrease violent crime.

It is generally recognized that the relationship between alcohol availability and crime is best studied using small geographic areas no larger than cities. Using city-level data, it was found that increases in alcohol availability helped explain why the homicide rate was positively related to beer consumption and negatively related to increases in the minimum drinking age. A recent study of cities in Los Angeles County found that 70 percent of violent crime could be explained by a community's sociodemographic characteristics, but that an additional 7 percent of the variability in violent crime could be explained by alcohol outlet densities. However, these findings were not entirely replicated in a study of more than 200 New Jersey municipalities: Alcohol outlet densities did not significantly contribute to violent crime rates after controlling for the same sociodemographic characteristics. In a further study focused on the relationship between alcohol outlet density and violence within a single New Jersey municipality, alcohol outlet density was found to be the best predictor of violent crime. Alcohol outlet density was also a significant predictor of neighborhood variations in the level of violent crime in studies conducted in several other U.S. cities.

Overall, this research suggests that moderate restrictions on alcohol availability may reduce violence. However, several researchers argue that the existing studies do not establish a causal relationship because the findings have been equivocal, there is uncertainty about what other variables should be controlled, and the full range of possible confounding factors has not been examined. Moreover, even if a causal relationship between outlet density and rates of violence were to be established, the underlying mechanism would also need to be specified before policies could be developed. For example, the association between alcohol availability and violent crime may be due to the effects of alcohol on individuals' psychological functioning: The more outlets

there are in a community, the greater the number of people drinking and therefore subject to the cognitive effects of alcohol (see section on the pharmacological model). Alternately, it may be the drinking context—principally, drinking in public places—that explains the association between alcohol availability and violence. From this perspective, alcohol itself plays a relatively minor role; rather, it is the features of bars and other drinking places that matter.

Timing Onset

Studies of development trajectories of drug use and crime indicate very different patterns. That is, onset of delinquency peaks in mid-adolescence and then declines dramatically after age 18. On the other hand, illicit drug use usually begins in mid-adolescence, and initiation of some substances continues into young adulthood. It was found that rates for serious delinquency decreased by 70 percent as their sample aged from adolescence to young adulthood. On the other hand, rates for polydrug use increased by 350 percent during this same time period.

Researchers have examined the temporal order timing between various stages of drug use and delinquency. It was found that, among subjects who initiated delinquency and polydrug use, minor delinquency almost always came first and, in fact, no one initiated marijuana or polydrug use before minor delinquency. Alcohol use came second, although a substantial percentage of subjects initiated Index offenses prior to alcohol use. In general, however, alcohol use was followed by marijuana use, then Index offending, and, finally, polydrug use. Among subjects who initiated both marijuana use and Index offending, Index offending was more likely to precede marijuana use than vice-versa. It has been noted, however, that whereas delinquency is more likely to influence the onset of drug use than the reverse, serious drug use (repeated polydrug use) is more likely to influence the maintenance of serious delinquency. In other words, if drug use does influence delinquency, it may be by reducing the probability of terminating, rather than increasing, the probability of initiating delinquent behavior.

Research on the long-term association between drug use and crime presents mixed finding. It was found that males who were aggressive in childhood or adolescence were more likely to be heavier drinkers and drug takers in adulthood. It was suggested that this continuity is probably not specific to aggression, but rather it is part of a general continuity in antisocial behavior from childhood to adulthood. Others found that, among adolescent males, early aggressive behavior compared with alcohol use was a better predictor of later alcohol-related aggression. Findings suggested that males who engage in alcohol-related aggression are aggressive from early adolescence and behave aggressively whether or not they use alcohol. Alternatively, a study of juvenile

offenders in Finland found that those juveniles who had arrests from drunkenness were more likely to have arrests for violent crimes 5 to 10 years later. In another study of adolescent offenders, it was also found that alcohol use predicted violent offending approximately 1 year later.

Recently, researchers examined the acute and long-term associations between alcohol, marijuana and cocaine use and aggression from early adolescence into adulthood. Overall, their results suggested that the long-term and acute relationships between aggression and drug use vary by drug type and stage of the life cycle. For example, whereas alcohol use was not significantly related to later aggressive behavior at any age, both marijuana and cocaine use in middle to late adolescence were significantly related to increased aggression in adulthood. In complement, it was found that drug use in adolescence predicted increase aggression in adulthood, although the predictive utility was weak. It was also found that among males, early delinquency predicted later drug use, but early drug use did not predict later delinquency. For females they found that illicit drug use in adolescence predicted delinquency in adulthood. A recent structural equation model test using high-risk samples found that current alcohol and cocaine use had a direct effect on increased criminality, whereas marijuana use did not. In addition to these drug type differences, longitudinal studies suggest that there are gender and age difference that affect the long-term associations between drug use and delinquency.

In sum, longitudinal studies that have examined the temporal associations between drug use and criminal behavior report mixed findings. Most studies have found that early aggression and delinquency predict later alcohol problems, yet the findings are equivocal as to whether early alcohol use predicts later aggression. Many studies have found that early drug use predicts later aggression and crime. Further, longitudinal research indicates that initiation into delinquency precedes drug use; however, changes in drug use affect changes in criminal behavior. Although the data indicates that, for most people, aggressive behavior precedes initiation into drug use, it does not mean that acute or chronic use of drugs does not lead to subsequent violent behavior. The data supporting a causal relationship will be reviewed separately for the psychopharmacological, economic motivation, systemic, common cause, and contingent causation models. These models can be seen in **Figure 1**.

Figure 1: Models of the Drug-Crime Relationship	
Psychopharmacological	1. Lowered self-control 2. Alcohol and violence 3. Disinhibition
Economic Motivation	1. Drugs are expensive 2. Illegal drugs are addictive 3. Feed expensive habit
Systemic	1. Illegal drug market 2. Violent/deviant individuals 3. Drug related homicides
Common Cause	1. Cluster of behaviors 2. Antisocial personality disorder 3. Risk factors
Contingent Causation	1. Violence conducive social situations 2. Certain conditions 3. Contingencies

The Psychopharmacological Model

The psychopharmacological model has gained greater support in the alcohol literature than in literature about other drugs. Support for this model comes from laboratory studies of animals and humans. Although studies of animals demonstrate that low to moderate doses of alcohol increase aggressiveness, there are many problems in generalizing from animal aggression to human violence. Here we discuss only studies of humans.

Controlled laboratory studies have consistently found that acute intoxication by alcohol (below sedating levels) is related to aggression when the subject is provoked. However, it has also been demonstrated that the relationship between alcohol use and aggression is moderated by subject characteristics (e.g., gender, aggressive tendencies, cognitive abilities), experimental design conditions (e.g., provocation, nonaggressive response alternative, peer pressure, normative standards), and beverage characteristics (e.g., dose, type). In a recent meta-analysis, it was reported that increased aggression under conditions of alcohol intoxication in the laboratory cannot be explained by either physiological disinhibition of alcohol or alcohol expectancies. Rather, alcohol increase aggression by causing changes within the person that increase the risk for aggression, such as reduced intellectual functioning, reduced self-awareness, and inaccurate assessment of risks. These same alcohol-induced changes may put a person at risk for nonaggressive crimes, although less research and theorizing has been applied to

psychopharmacological explanations for property crime. Numerous biological and neuropsychological mechanisms have been proffered to explain how alcohol use increases the risk of violence.

The psychopharmacological explanation for the drug-violence association has largely been refuted in the literature with regard to heroin and marijuana, but it has received strong support with regard to barbiturates and tranquilizers. Laboratory studies indicate that marijuana and opiates have the opposite effect of alcohol in the laboratory cannot be explained by either physiological disinhibition of alcohol or alcohol expectancies. Rather, alcohol increases aggression by causing changes within the person that increase the risk for aggression, such as reduced intellectual functioning, reduced self-awareness, and inaccurate assessment of risks. These same alcohol-induced changes may put a person at risk for nonaggressive crimes, although less research and theorizing has been applied to psychopharmacological explanations for property crime. Numerous biological and neuropsychological mechanisms have been proffered to explain how alcohol use increases the risk of violence.

The psychopharmacological explanation for the drug-violence association has largely been refuted in the literature with regard to heroin and marijuana, but it has received strong support with regard to barbiturates and tranquilizers. Laboratory studies indicate that marijuana and opiates have the opposite effect of alcohol in that moderate doses temporarily inhibit aggression and violence, although withdrawal from opiates increase aggression. There is some research to indicate that chronic use of marijuana, opiates, and amphetamines increase the risk of violent behavior. No conclusive evidence supports a direct association between cocaine use and violence. As well, there has been no evidence (except anecdotal and small samples) that acute use of PCP (phencyclidine) and LSD (lysergic acid diethylamide) is associated with violent behavior, except when use enhances already existing psychopathology. Similarly, cocaine and amphetamine use can increase paranoia, which might result in violence. However, the intoxicating effects of all of these drugs account for very little drug-related violent crime. It is also possible that drug and alcohol use may interact to affect violent behavior.

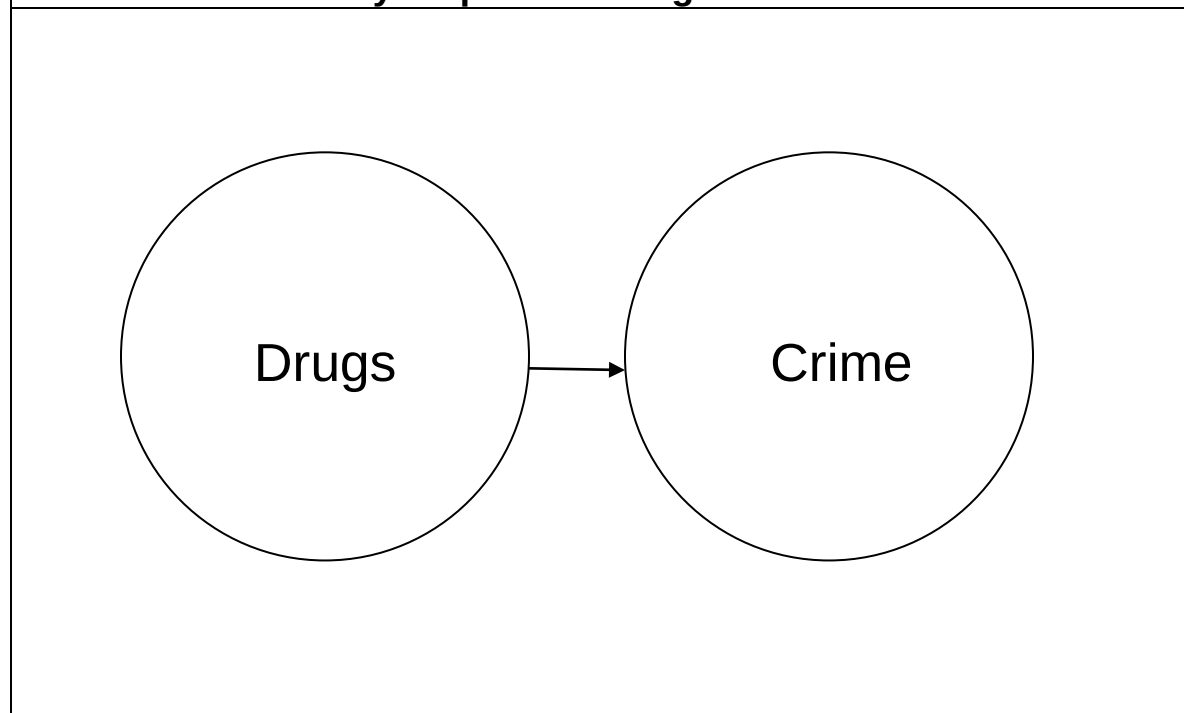
In a study of drug-related homicides in New York City, only 14 percent were classified as psychopharmacological. Whereas all homicides committed while the offender was under the influence of alcohol but no other drug were classified as psychopharmacological, few such cases involving the use of another drug without alcohol were so classified. Researchers found that the association between alcohol use and homicide held true for both juvenile and adult offender, with about one-third of the offenders reporting that they had used alcohol prior to committing the offense.

As in other areas, there are important gender, ethnic, and age differences found in the research. Studies that have examined the role of alcohol and other drugs in violent crime indicate that the psychopharmacological model predominates for females and that the predominant drug is alcohol. Further, men who are killed by women often have alcohol in their blood at the time of death. Interestingly, alcohol and drugs appear to play a greater role in homicides of intimates than nonintimates among women than with men. Alcohol is also the predominant drug in the psychopharmacological model for males, although the systemic model is predominant. It was found that Hispanics, compared with whites and blacks, had the strongest association between alcohol use and psychopharmacological violence, although alcohol was the drug most often associated with psychopharmacological violence for all three ethnic groups.

The psychopharmacological model has received little support in the adolescent literature. However, in one study of adolescents who were adjudicated for a violent crime, more than half said that taking alcohol or drugs contributed to their violent acts, and almost half of them had used either alcohol or drugs immediately prior to their adjudicated violent offense. Note, however, that the rates were higher for other drugs than for alcohol. Further, in a study of incarcerated adolescents, it was found that more than two-thirds of the incidents of physically assaultive crime involved acute intoxication involving alcohol either alone or in combination with another drug. Similarly, a large majority of the drug-related sexually assaultive crimes involved alcohol use. On the other hand, marijuana use was underreported in offenses against persons. It is possible in both these studies that arrested juveniles over reported alcohol or drug use prior to their offense in order to justify their behavior.

In sum, the psychopharmacological model appears relevant for explaining a potential causal relationship between alcohol and violence among adults but little of the relationship between drugs and crime. However, after a thorough review of the existing literature, it is concluded that the social environment is a more powerful contributor to violence than are the pharmacological effects of any drug, including alcohol. A visual representation of this model can be seen in **Figure 2**.

**Figure 2:
Psychopharmacological Model**



Economic Motivation Model

Support for the economic motivation model comes from literature on heroin addicts, which indicates that raising or lowering the frequency of substance use among addicts raises or lowers their frequency of crime, especially property crime. In addition, criminal activity is significantly greater following addiction to drugs than before addiction. Although heroin use may not initiate crime, addiction is often a key, point in the acceleration of an existing criminal career. For those already criminally involved prior to addiction, the addiction increases their criminal activities only somewhat. However, for those not seriously involved with crime prior to addiction, there is a much sharper increase in criminal activity related to addiction status. Thus, for addicts with little prior criminal involvement, the data support an economic motivation model; for those with heavier criminal involvement, the data support a common cause model.

Containment of heroin use through treatment and close supervision appears to lead to dramatic reductions in both drug use and crime. But recent research suggests that there are individual differences in the effects of treatment on reducing crime. It was found that a reduction only occurred for individuals

with previously low levels of criminal activity. Those individuals with criminally derived incomes (i.e., those who did not commit crimes only to get money for drugs) prior to treatment, remained criminally active after treatment. Further, there appear to be ethnic/racial differences in the effects of treatment on crime reduction.

All of this research points to the need to differentiate among different types of drug users when studying the drug-crime association. Some addicts are criminal prior to, and regardless of, their drug use, although their crime rates may increase during heightened periods of addiction. Eliminating their drug use would probably reduce, but not necessarily eliminate, their criminal behavior. Other addicts become involved in crime as a result of their addiction. Eliminating their drug use would probably also eliminate their criminal behavior. Finally, there are some addicts who avoid criminal activities (except, of course, illegal drug possession and use) altogether. Reducing drug use among this group would have no effect on rates of crime. In fact, most drug users, and even some drug addicts, do not commit crimes, especially when one excludes drug dealing. Just as there are many types of criminals and noncriminals among drug users, there are also many types of drug users and nonusers among criminals. Nevertheless, among criminals, those who are frequent drug users are likely to be frequent offenders and use many kinds of drugs regardless of sex, race/ethnicity, age, and place of residence.

It has been argued that the association between drugs and property crime is not universal. That is, in countries such as Britain and the Netherlands, where drug maintenance and treatment are provided by the government, there are much lower levels of property crime attributed to narcotics use. Further, social class will affect the drug-crime relationship. Not only will income affect whether crimes are committed, but drug users who are poor will have higher arrest and conviction rates. The nature of economically motivated crime also varies by type of drug use. In one study of cocaine-heroin users, robbery was associated with cocaine use, but not with marijuana, pill, or alcohol use before, during, or after crime commission.

The fact that treatment reduces income-generating crimes rather than all crimes supports the economic motivation model. In contrast, self-report data do not provide unequivocal support for an economic motivation theory. In 1997, only 16 percent of male inmates reported having committed a crime to get money for drugs, and more property (26 percent) crimes than violent (9 percent) crimes were committed to get money for drugs. Data from adult inmates have shown that only about one-fourth cite drug involvement as their main reason for first becoming involved in crime. Also, in a study of homicides in New York City, only 4 percent of all drug-related homicides were classified as economically motivated, and cocaine was the drug most often associated with economically

motivated homicides. It was also found a stronger association between heroin use and economically motivated crimes for Hispanics than for blacks or whites.

Studies of female addicts suggest that they tend to commit primarily nonviolent income-generating crimes, especially prostitution, drug selling, and shoplifting, although female drug users engage in a variety of crimes. Not only do women engage in prostitution to get money for drugs, they often barter sex for drugs. Much of the research on prostitution, similar to research conducted on other criminal behavior among male and female drug abusers, suggests that many prostitutes committed crimes prior to becoming addicted to drugs and that prostitution served as a means of making a living, not just a means of obtaining drugs. Even if these women had not previously engaged in prostitution, they had engaged in some types of criminal behavior prior to addiction. In other words, drug use does not cause prostitution; rather, individuals who are prone to drug use are also prone to criminal behavior of all kinds.

The role of prostitution among female addicts has changed in response to variations in drug epidemics. Although studies in the 1970s found that more female drug users were prostitutes than were drug dealers, as crack selling became profitable, some women gave up prostitution in favor of dealing. Still, many women who use crack continue to be heavily involved in prostitution, and the economic motive is clear. In other words, the crack epidemic provided female prostitutes with a high-income-generating alternative to prostitution, but it also immersed female users deeper in prostitution. Crack cocaine affected the drug-prostitution association by lowering the price of sex for street prostitutes, lowering the social status of cocaine, and increasing the level of social disorganization and street violence related to prostitution. Research, however, challenges the notion that most female addicts are forced to become prostitutes.

The economic motivation explanation has not been supported among adolescents. Intensive drug users and highly delinquent youths do not report committing crimes to raise money for drugs. Adolescents in the community report committing crimes to have fun, to obtain valued goods, or to get money. They claim to be able to obtain drugs within their usual budgets and maintain that other commodities are purchased using the profits of crime. The current involvement of many youths in the crack market may provide enough income to reduce their need for economically motivated crime.

In fact, across age groups, there appears to be much less economically motivated, predatory crime related to crack than there was to heroin in the 1970s and 1980s. The reduction in property crime since the beginning of the crack epidemic supports this view. Because there is more money in crack distribution than in previous illegal drug markets, drug dealing may have obviated the need to commit property crimes and income-generating violent crimes. Thus, much of

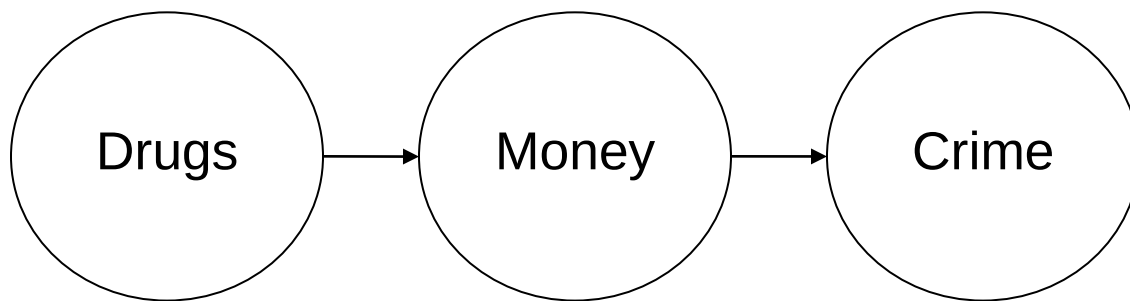
the recent research dispels the assumption of economically motivated crime, excluding drug dealing.

The major illegal activity for heroin-cocaine users is drug distribution, and this is true even for less drug-involved criminals. The selling of crack surfaced in 1984, and by 1988, it became the most frequently committed crime, regardless of prior drug use or criminal involvement. Further, crack became the most economically valuable drug for dealers. The number of drug-dealing opportunities reduces the necessity of property crime because it provides drugs and/or alternative income. Recent research suggests that, although the crack era is in decline, crack sales have stabilized. Users are moderating their use, but crack cocaine is still a permanent part of the drug economy and community.

We have chosen to exclude dealing as a drug-related crime and will only briefly discuss the intricacies of drug use and drug dealing. It should be noted that rates of drug use vary considerably among dealers. That is, many dealers, especially at the higher levels, do not use drugs or do so moderately. In fact, for many young crack dealers, selling is an economic opportunity rather than a means of financing their own drug use. Yet, at lower levels, most dealers use drugs. Further, many, if not most, serious drug users at some time are involved in dealing activities. Females are often dealers, although in relation to males, fewer women participate in drug distribution. Further, women's roles are mostly confined to the lower levels of the business.

Studies consistently show that crack users are heavily involved in dealing, but they are also involved in nondrug criminality. In a study of in-custody, inner-city male adolescents, researchers found that large percentages of dealers did not use cocaine or crack, but few crack or cocaine users did not also deal. Comparing crack abusers with other drug users and it was found that, in general, crack abusers used drugs at a much higher rate, were more involved in drug dealing, and had higher frequencies of nondrug crimes (except compared with heroin users). Crack selling, however, was also prevalent among cocaine snorters and marijuana users. In fact, for all illicit drug users, crack selling was the most frequent crime and generated the largest cash income. Violence was related to crack selling rather than use, and those selling in groups had higher rates of violence than those selling alone. Findings support other research that indicates the association of crack use with violence is due to distribution rather than use. This type of violence has been labeled "systemic" and is discussed in greater detail in the next section. A visual representation of the economic motivation model can be seen in figure 3.

Figure 3
Economic Motivation Model



The Systemic Model

The systemic model explains drug-related crime as resulting from negative interactions in the illegal drug market. This model probably accounts for most of the current violence related to illicit drug use, especially drug-related homicides, which increased significantly with the appearance of crack in 1985 (although they are currently declining). In a 1988 study in New York City, three-quarters of drug-related (including alcohol-related) homicides were systemic. The major drug of involvement was crack, followed by powder cocaine. Only 3 of 218 homicides involved heroin. In a 1984 study of New York State (excluding alcohol-related), the majority of drug-related homicides were found to be psychopharmacological. It was suggested that the difference in findings from the 1984 study to the 1988 study probably reflects the more rural nature and the poorer documentation in police records in the former study as well as the fact that the latter study occurred during the peak year of crack use and distribution.

Whereas most research finds that only a small proportion of females are perpetrators of systemic violence, recent studies suggest that women's roles in the illicit drug market are increasing. Hence, we expect to see higher rates of drug-related systemic violence among females. Further, women are often victims of cocaine-related violence. Drug sellers are often victims of assaults,

robberies, and homicides. In addition, police, potential witnesses, and informants are often victims of systemic violence. With the increase of systemic violence, some studies that use law enforcement data have reported that Hispanics and blacks are more likely than whites to be perpetrators and victims of systemic violence, although findings on ethnic/racial differences are inconsistent across studies.

It has been suggested that at any given time, systemic violence is associated with whatever drug is most popular. There is a cyclical nature of the association. When the drug first increases in popularity, there is little violence, probably because there is great demand that dealers cannot meet (thereby reducing competition for customers). This stage lasts about 6 months. As the number of new users levels off, violence begins to rise. Dealers now have enough supply to meet demand, and they need to compete for territory. At this point, dealers also increase their awareness of subordinates who may be stealing money for drugs from them, leading to more violence. Finally, individuals who are heavily involved with the new drug begin to perpetrate con games to support their continued use, and these can also result in violence. Homicides increase at this point because many dealers carry firearms and use these weapons to kill rivals or subordinates who have broken rules. Violence eventually declines as drug distribution becomes stabilized and as community norms begin to reject the behavioral excesses associated with drug use and dealing. Many of the individuals involved in the drug scene are violent, and some of their violent behavior serves the purpose of saving face. Thus, even if the drug scene disappeared, these same individuals would still engage in violence.

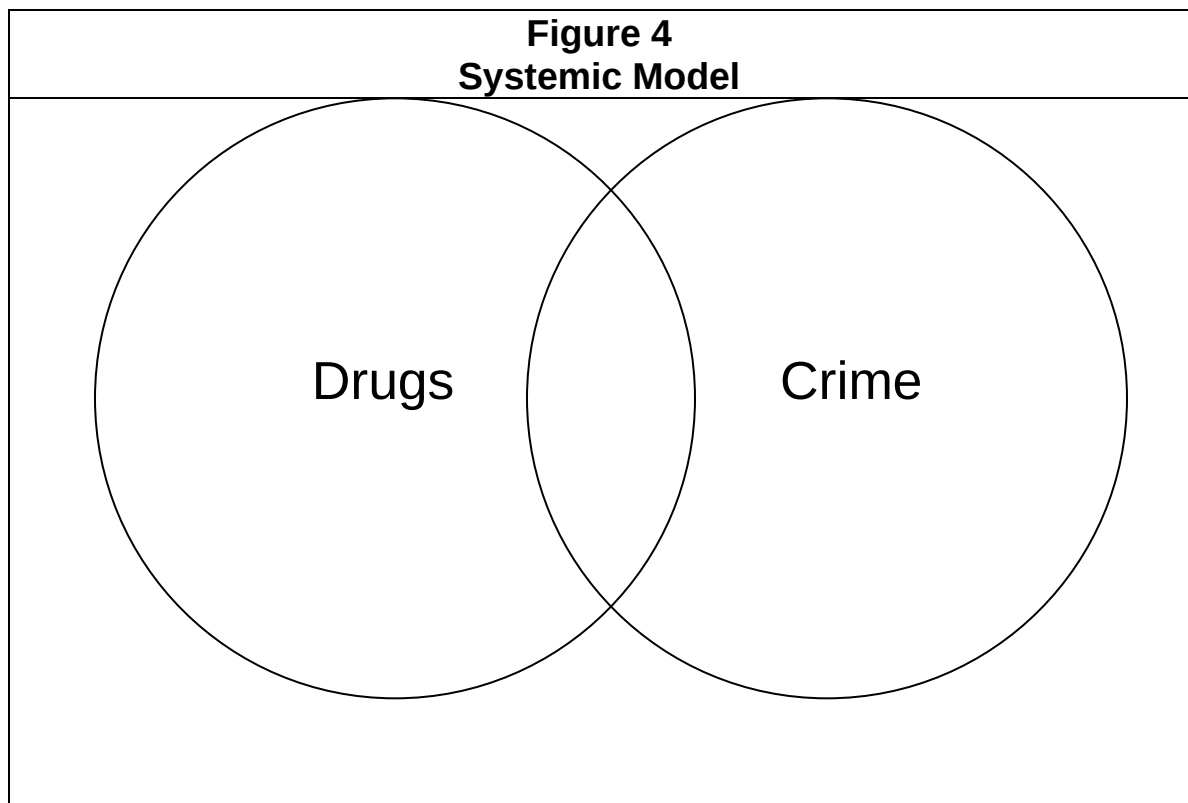
Research supports the prominence of the systemic model and dispels many myths about the drug-crime relationship. That is, research indicates that very little violence is caused by individuals who are high on illicit drugs (i.e., pharmacological violence) and that little drug-related violence is economically motivated. Thus, public safety is not threatened by drug users who commit predatory acts to get money for drugs or who are under the influence of drugs. Yet, some robberies and the resulting assaults or homicides that have been categorized as systemic violence probably involve an economic motivation.

Studies conducted in the 1980s suggested that the systemic model was not applicable to the majority of youthful drug users because few were involved in distribution at a high enough level. More recent studies suggest that the systemic model can probably account for a significant amount of drug-related violence among youths in inner cities. The crack market has attracted a younger group of sellers than previous drug markets, possibly because the demand for crack makes dealing easy and profitable, the business provides opportunities for advancements and feeling of achievement, and dealing creates a challenge for youths.

Some researchers have blamed the increased violence related to drug dealing on youth gangs. In general, however, studies show that there are numerous types of gangs, many of which do not sell or use drugs. Further, dealing is equally prevalent among gang members as among nongang members. In addition, there are no data to suggest that drug-related activities per se increase gang violence. Apparently, increase and decrease in gang violence have little to do with drugs.

Researchers have demonstrated that previous involvement in violent crime increased the risk of drug dealing for male adolescents, as did previous involvement in property crime. Thus, individuals drawn to dealing are already violent and delinquent and, once involved in drug use or dealing, their level of violent behavior (including weapons possession) increase. It was also found that crack use did not increase initiation rates for violent crimes such as assault, robbery, or rape. Similarly, it was found that crack dealers, when compared with those with little or no involvement in crack sales, were younger when they began their criminal careers and had been involved in criminal activity (including sale of marijuana) prior to becoming crack dealers. However, involvement in dealing accelerated delinquency involvement. It has been argued that violence in the crack trade is a result of violent individuals selecting themselves for this line of work as well as being recruited into it (to provide protection, maintain discipline, and fight for turf).

Overall, the results of these studies suggest that deviant individuals are attracted to drug selling, rather than that drug selling causes individuals to become criminals. Hence, these results support a common cause rather than a direct causal model. We discuss the common cause model in greater detail in the next section. A visual representation of the systemic model can be seen in **Figure 4**.



The Common Cause Model

Researchers have identified a problem behavior syndrome in which cigarette use, precocious sexual behavior, problem drinking, use of marijuana and other drugs, stealing, and aggression were clustered together. They found that this cluster of behaviors was explained by the same set of environmental and personality variables and was negatively related to conventional behavior. Other researchers, however, have argued that problem behaviors constitute several distinct factors rather than a single construct. Overall, the literature suggests that substance use and delinquency share several common causes or predictors, although there are also specific factors (e.g., coping style and opportunity) that determine which adolescents specialize in each behavior.

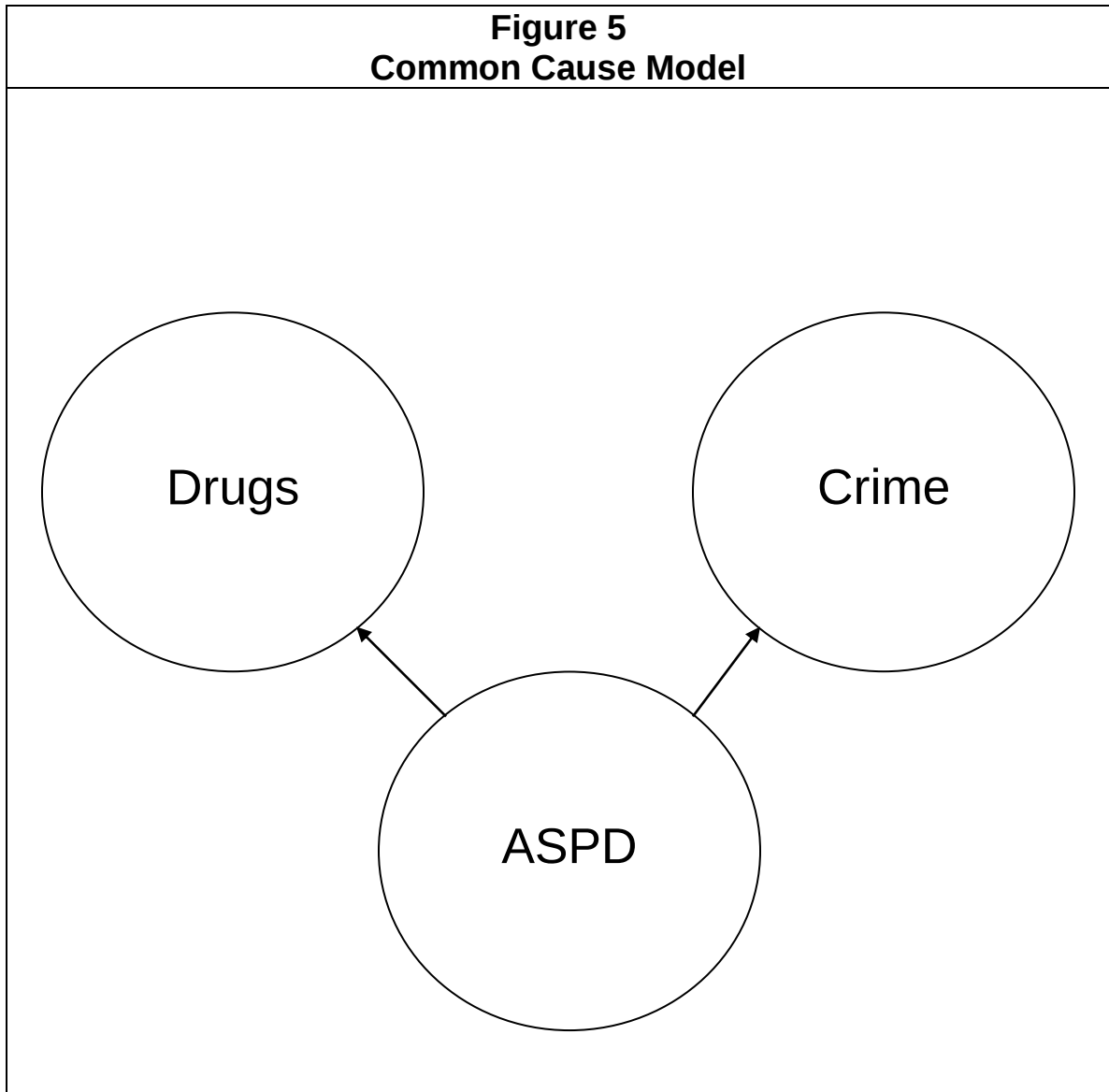
Given that problem behaviors share several common causes, the same individuals would be expected to engage in both substance use and crime. For example, many of the childhood risk factors for violence identified in the National Research Council report on violence have also been identified as risk factors for teenage drug use and for adult alcohol and drug problems. Some of the common risk factors are hyperactivity, impulsiveness, risk taking, inability to delay gratification, abuse or rejection in the family, lack of parental nurture, early

school failure, peer rejection, social disorganization, and availability of drugs and/or weapons. However, in a study of a high-risk sample, it was found that there were different predictors of alcoholism and violence. For example, early aggression and poor school attendance in the first grade predicted violence, but not alcoholism, in adulthood. Further, risk factors for alcoholism and violence differed by gender. It has been demonstrated that there are both specific and common antecedents for drug use, theft, and aggression. A number of predictors from several different domains found that drug use and theft share more similar antecedents than aggression. Clinical and community data clearly support a comorbidity between alcohol/drug abuse and antisocial personality disorder (ASPD). The data on comorbidity suggest that individuals with ASPD are likely to be heavily involved with alcohol and drugs and that those drugs and alcohol disorders are often diagnosed with ASPD. Yet there is no evidence to show that one disorder causes the other. Rather, there may be a set of predisposing personality or temperament factors (e.g., impulsiveness) or family background factors (e.g., parental alcoholism) that may contribute to both. Some of these factors may even have a genetic basis, although more research is needed to provide conclusive evidence.

Criminal justice statistics indicate that offenders are heavier drinkers and drug users than the rest of the population. Data indicate that about one-third of inmates in local jails and State prisons are daily drinkers. Two-thirds of the jail inmates sample drinkers and one-third to one-half of the prison sample drinkers reported having been in a treatment program for alcohol dependence. In addition, most jail inmates reported having used illicit drugs (82 percent), and two-thirds were regular users (i.e., used at least once a week for a month). The predominant drug was marijuana, although more than half reported having used cocaine or crack at any time, and 31 percent reported regular use of cocaine. Further, 42 percent of jail inmates had received substance abuse treatment. In one study of prison inmates, 56 percent were diagnosed with alcohol abuse or dependence at some time in their lives, compared with approximately 19 to 29 percent of those living in the community. Researchers used structured clinical interviews to diagnose alcohol and drug dependence among male State prison inmates in Massachusetts. They found that 95 percent of those interviewed met DSM-II-R (Diagnostic and Statistical Manual of mental Disorders) diagnosis of abuse or dependence for at least one substance.

Similarly, recent data from the DUF/ADAM study indicate that between 51 percent (in San Jose) and 80 percent (in Chicago) of male arrestees and between 38 percent (in San Antonio) and 81 percent (in Manhattan) of female arrestees tested positive for any drug. Almost half of the males and 65 percent of the females arrested for homicide tested positive for drugs. Analyses of the DUF/ADAM data have found that more women test positive for drugs than men. This gender difference could result from the fact that only the most deviant women get arrested. Data from studies of urine testing of adolescent offenders

also indicate high rates of drug use. These drug-testing results do not necessarily shed light on a causal relationship because these rates reflect drug use at the time of the arrest, not necessarily the time of offense. Thus, these data simply demonstrate that many criminal offenders are also drug users. A visual representation of the Common Cause Model can be seen in Figure 5.



Contingent Causation Model

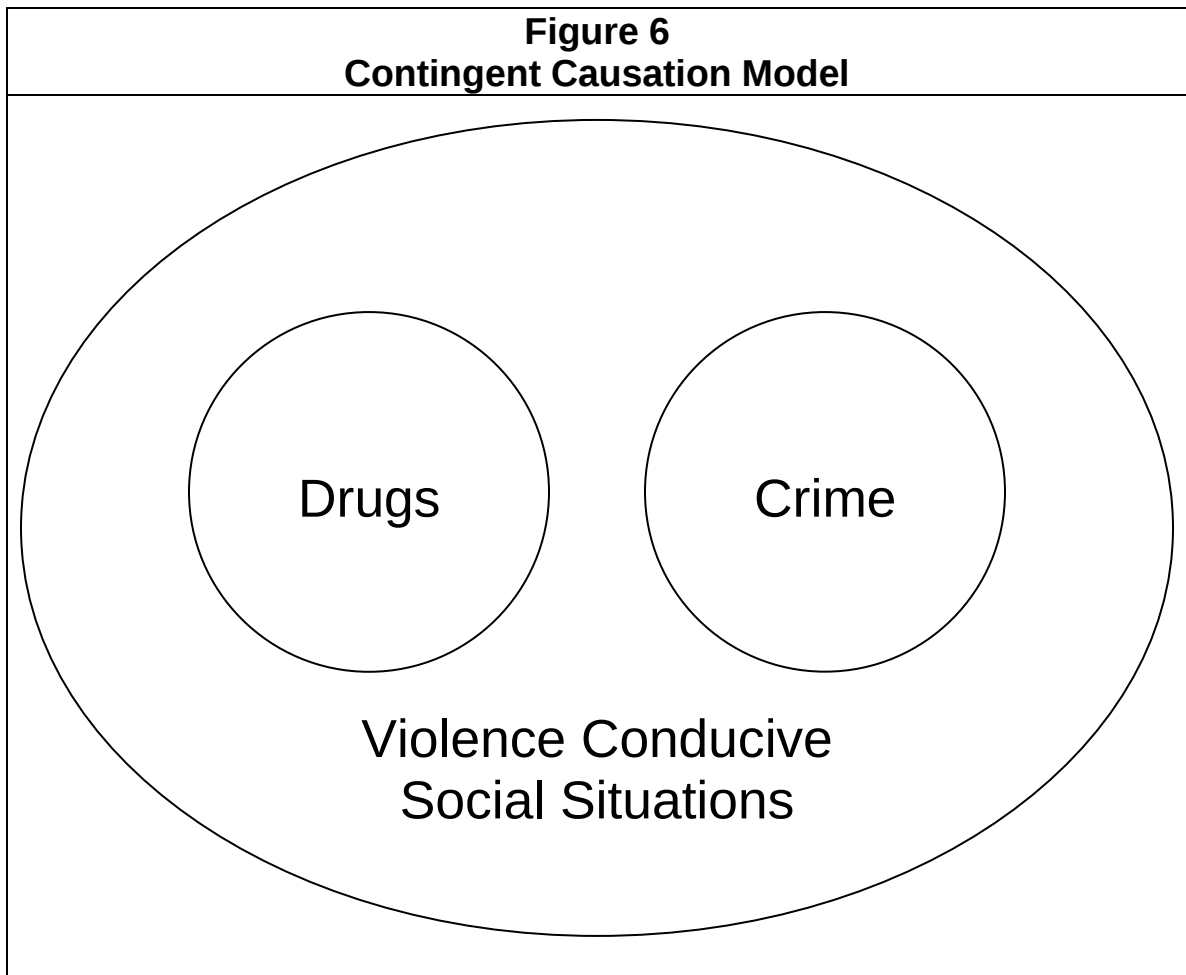
The violence models presented above have become so entrenched in the U.S. psyche that it is now conventional wisdom that homicide and illegal drug markets are indelibly connected. However, it has been suggested that, “there is no iron law that illicit markets will generate a high body count”. As evidence, there are several factors. First, the “systemic” drug-related violence issue is completely absent from scholarly writings on the illicit drug problem in European countries such as Italy and the Netherlands. Second, despite considerable documentation suggesting that drug markets are a problem in virtually every industrialized country, the literature indicates that drug-market-associated lethal violence is a problem in few of these countries. Third, a 1994 Council of Europe study of drug markets in 13 major European cities does not give a single mention to the systemic violence problem. Finally, the explosion of drug trafficking during England’s heroin epidemic of the 1980s resulted in little, if any, rise in lethal violence rates.

Given the absence of evidence for drug market-related lethal violence in international data, it would be tempting to completely discount the view that drug markets are associated with homicide rates. However, results from U.S.-based studies are too compelling to be considered coincidental. Therefore, an alternative hypothesis has been proposed regarding the link between illicit drug markets and homicide. Specifically, it is suggested that the creation and expansion of illegal markets will produce extra homicides when social circumstances conducive to lethal violence already exist. Thus, from this perspective, the apparent international disparities in the drug market-homicide association can be attributed to the fact that the social context of the United States is more favorable to violence than is the social context in most European countries.

To the extent that the drug market-homicide relationship is variable, the challenge for researchers is to determine which social circumstances facilitate and which inhibit this relationship. Unfortunately, there is little specific guidance as to what constitutes “violence conducive social conditions.” Nevertheless, as an initial step in specifying the important contingencies, extant criminological literature identifies several structural features of urban areas that may reasonably be considered violence conducive social conditions. These are:

- a. Resource deprivation (poverty, unemployment, etc.)
- b. Population structure (dense, large centers)
- c. Percentage divorced (social disintegration)
- d. Southern region (subculture of violence)
- e. Percentage aged 15-29 (risk and experimentation)

A visual representation of the Contingent Causation Model can be seen in **Figure 6**.



Summary of Empirical Research

It is obvious from the previous review of empirical research that a single model cannot account for the drug-crime relationship among all people. Rather, there are some individuals for whom the acute, and possibly chronic, cognitive effects of some drugs, such as alcohol, increase the propensity toward criminal behaviors. For others, involvement in deviant behavior weakens bonds to conventional norms and increases involvement in deviant subcultures (including the illicit drug market) that provide opportunities and reinforcement for increased deviant behavior, including drug use. Finally, for others, probably a majority, biopsychological factors (e.g., temperament) and early parent-child interactions, in combination with socioenvironmental factors, increase the risk for involvement in all types of deviant behavior.

In short, the drug-using/crime-committing population is not homogeneous; rather, it is composed of subgroups of individuals displaying different causal paths. This should come as no surprise because research has long shown that both drug users and criminals are not homogeneous groups with single developmental trajectories. Of prime importance in this regard is distinguishing between individuals for whom the problem (whether drug use, delinquency/crime, or a combination of both) is limited to adolescence and those individuals for whom it persists into adulthood. The former type of behavior has been shown to be predicted by normal socialization process, whereas the latter typically has an earlier onset, is more extreme in its manifestations, and is predicted by personality and behavioral variables. This developmental heterogeneity of both drug use and delinquency necessitates approaches to intervention that are developmentally appropriate, not monothematic or focused on a narrow range of risk factors.

Conclusions

Several general findings have emerged from this view:

- Drug users, and even drug addicts, are heterogeneous in terms of their levels of criminality and their patterns of crime.
- Criminal offenders are heterogeneous in terms of their levels of drug use and pattern of use.
- Most drug users do not commit any crimes, with the exception of obvious drug-related crimes (i.e., possession and dealing).
- Most criminally involved male and female drugs users do not specialize in only one type of crime.
- Although there are common causal factors in both alcohol/drug use and delinquent and criminal behavior, there exist various subgroups displaying different causal paths.
- For most criminally involved drug users, drug use does not cause initial criminal involvement.
- Alcohol is the drug most often associated with psychopharmacologically motivated violent crime.
- A large proportion of drug-related crime, especially violent crime, is a result of drug market forces.

- It is not the type of drug per se, but rather the economic conditions of the drug market that appear to influence the drug-crime connection.
- What is especially obvious from this review is the fact that there is substantial variation in all of the issues surrounding drug use and crime. Thus, stereotypes of drug use and crime are often inaccurate.

Broad Policy Options

Although violent crime rates have dropped significantly during the 1990s, current concern about the drug-crime nexus is focused primarily on drug use and violence. There are many different types of individuals involved in drug-related violence. Hence, prevention and intervention policies should differ, depending on which type of violent offenders we are trying to reach. Some individuals are violent regardless of whether they drink or use drugs. Targeted interventions to reduce aggressive tendencies would be most promising for them. Yet, for some individuals, the state of intoxication (especially from alcohol), the setting, and specific provocation interact on a specific occasion to cause an isolated incident of violent behavior. Responsible drinking campaigns aimed at reducing high-quantity consumption would be most appropriate for this group, as well as situational controls (such as responsible beverage service training) and community-based actions designed to limit access.

Reduction of most of the violence related to illicit drug use would have to focus on the illegal drug trade. Drug control efforts for much of this century, and especially since the late 1980s, have attempted to address this issue through interdiction designed to disrupt the importation of drugs into the country and law enforcement strategies designed to arrest, prosecute, and imprison those involved in the domestic market. This has resulted in record numbers of offenders being arrested and incarcerated for drug-related offenses. Critics argue that this approach has failed to curtail drug use or violent crime and that change in U. S. drug policy are required. For some, a shift of resources from supply reduction to demand reduction, through prevention and treatment of drug abuse, would be effective in reducing both drug use and systemic violence. A far more radical alternative strategy, and one that is extremely controversial in the United States, is legalization of drugs. This, it is argued, would remove the profit from drug dealing, and, without profits, dealers would leave the business and no longer push drugs on young people. In addition, disputes related to illegal distribution would be eliminated.

As discussed at the beginning of this section, a variety of harm-reduction models occupy the vast area between the war on drugs and outright drug legalization. Australia and a few European countries employ harm-reduction strategies, and some researchers have noted the lower rates of drug-related

crime in such places. Others suggest that if drug abusers had easier access to drugs (e.g., in the form of maintenance drugs) and to finances (e.g., in the form of welfare), then there would be little criminal involvement on their part. They also argue that the high rates of illicit drug use and violent crime in the United States are a direct result of the social policies in our country. However, one needs to exercise caution in drawing inferences from the policies that exist in other countries, as American society might differ in other ways that have more important effects on drug consumption and related consequences than policy. In addition, it is worth noting that the country with the best-known harm-reduction-based policies, The Netherlands, has experienced a shift toward more punitive sanctions in recent years, primarily as a result of public fear of crime.

Others argue that even if we were to eliminate or substantially curtail the drug economy, we would not necessarily reduce violence because much of the drug-related violence results from the recruitment of violent individuals from violent communities. It is also possible that if the drug market were reduced or eliminated, some criminals who profit financially from the drug trade would revert to alternative crimes to get money, including violent crimes such as robbery. In this case, prevention and treatment efforts may be better spent concentrating on violent individuals and the sources of their violence. These changes would entail providing youths with noncriminal routes to social status, including better paying jobs, better schools, and more opportunities, as well as remedying community disorganization and economic hardships. For example, others argue that drug use per se is not the root cause of criminality for most street drug users. Rather, the real cause of the problem is urban poverty and the complex problems surrounding it, such as lack of skills, education failure, and inadequate parental socialization.

Still others maintain that both drug use and crime are part of a broader decline in morality and civility in the United States. Proponents of this perspective argue that retreating from current drug control policies would simply signal a further lowering of moral standards and hasten the descent into social disorder.

Although there are no easy solutions to the problems that face us, especially those concerning drug use among youths and the increasingly punitive nature of our response to it, a more open debate of the issues and policy options available would surely benefit society. Fortunately, there are some initial signs that such a debate may, at last, be feasible.

Implications for the Future

In recent years, we have witnessed a large decrease in homicidal violence, although the reasons for the decline are not known. Some experts believe the decline was due to an increased number of police officers on the streets, and others believe it was due to changing demographics, increased violence prevention programs, or improvements in the economy. However, this decrease may be due to the stabilization of drug markets. The peak in homicide rates in 1979-81 was followed by a two-decade low in 1985. This decline was due to the fact that the powder cocaine market stabilized. Similarly, the sharp increase in homicides in the late 1980s was due to instability in the crack market and the subsequent decline that occurred after the market stabilized in the 1990s. There is, of course, no way to be sure of the exact cause or causes for the recent decline in violent crime. However, if we assume that drug use or drug dealing contributed to the sharp increase in violence of the mid-to late 1980s, then it would be logical to assume that changes in drug use or the drug economy may have contributed to its more recent decline.

As new illegal drugs come on the market or old ones regain popularity, and if there is chaos in distribution of these drugs, we may again see increases in drug-related violence. For example, there have been recent increases in heroin use and in organization of heroin dealing. If heroin dealing becomes as profitable as cocaine/crack dealing, then we may see an increase in systemic violence. Alternatively, if users and addicts cannot make enough money dealing, then it is possible that property crime may increase. Over the past several years, the largest increase in illicit drug use among youths has occurred for marijuana. Although marijuana is not as addictive as cocaine/crack or heroin, little is known about the market for marijuana. With the resurgence of marijuana popularity and the increase in quality and price, we may begin to see more systemic violence related to sale of the drug. If the market becomes more organized, then we also risk more dealers selling a variety of drugs. Further, with increases in prices for high-quality marijuana, perhaps we will see more economically motivated crimes.

The fact that the newest generation of drug users has largely avoided the use of hard drugs (such as cocaine and heroin) has optimistic implications for their future. That is, this generation should experience fewer negative health outcomes and less involvement in criminal activities. Nevertheless, because of poor socialization, economic hardship, and the lack of skills and opportunities, many of these individuals may still be forced into crime as a means of economic survival.

In contrast to illicit drug market changes, it has been argued that the decreases in homicide rates and other forms of violence in large cities during the mid-1990s were preceded by significant declines in alcohol consumption in the

United States. The worry is that as alcohol use regains popularity, we will again see increases in violence. In addition, if the recent increase in methamphetamine use continues, we may see more psychopharmacologically induced violence. There also has been a noted increase in use of some fad drugs in different areas of the country, including Ketamine (an animal tranquilizer, Rohypnol (a date rape drug), GHB (gamma hydroxyl butyrate, a date rape drug), and MDMA (methylenedioxymethamphetamine, a hallucinogen). Use of drugs such as Rohypnol and Ketamine, which are sedatives that act similarly to alcohol, may also lead to increases in violence. Analyses of DUF/ADAM data, as well as research by others, indicate that factors pertaining to drug markets and their relation to the commission of different types of crime will vary by geographic location, presumably because the conditions that affect these outcomes differ from place to place. Thus, interventions designed to positively affect such factors must be adapted to address specific local circumstances and engage community agencies and members in defining problems and finding solutions.

A review of this multifaceted literature, presents one clear thing. There are definitely drug epidemics that are cohort specific, and they come and go quickly. As researchers begin to study these epidemics, and especially by the time that empirical findings are published, the epidemics often dissipate. Hence, the conclusions reached and their policy implications become outdated too soon. In other words, it may be impossible to stay on top of the drug-crime relationship because of its constantly changing nature.

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Appendix A: Post Test and Evaluation for *Criminal Addicts or Addicted Criminals? Theories of the Drug-Crime Relationship*

Directions: To receive credits for this course, you are required to take a post test and receive a passing score. We have set a minimum standard of 80% as the passing score to assure the highest standard of knowledge retention and understanding. The test is comprised of multiple choice and/or true/false questions that will investigate your knowledge and understanding of the materials found in this CEU Matrix – The Institute for Addiction and Criminal Justice distance learning course.

After you complete your reading and review of this material, you will need to answer each of the test questions. Then, submit your test online for processing. This can be done in the following manner:

Submit your test via the Internet. All of our tests are posted electronically, allowing immediate test results and quicker processing. First, you may want to answer your post test questions found at the end of this appendix. Then, return to your browser and go to the Student Center located at:

<http://www.ceumatrix.com/studentcenter>

Once there, log in as a Returning Customer using your Email Address and Password. Go to 'My Courses' then to the subject course. Then click on 'View Lesson Quiz' and you will be presented with the electronic exam.

NOTE: THE EXAM QUESTIONS AND /OR ANSWERS MAY BE IN A DIFFERENT ORDER IN THE ONLINE EXAM

To take the exam, simply select from the choices of "a" through "e" for each multiple choice question. For true/false questions, select either "a" for true, or "b" for false. Once you are done, simply click on the submit button at the bottom of the page. Your exam will be graded and you will receive your results immediately. If your score is 80% or greater, you will receive a link to the course evaluation. You will also receive a link to the Certificate of Completion. This is the final step in the process, and you may save and / or print your Certificate of Completion.

If, however, you do not achieve a passing score of at least 80%, you will need to review the course material and return to the Student Center to resubmit your answers.

Answer the following questions by selecting the most appropriate response.

1. One of the explanatory models of the relationship between drugs and crime is that it is:
 - a. reconstructive
 - b. retroactive
 - c. reactive
 - d. residual
 - e. reciprocal
2. Most traditional theories assume:
 - a. sobriety
 - b. intoxication
 - c. rationality
 - d. morality
 - e. a higher power
3. Illegally obtained or ingested legal drugs is termed:
 - a. divesture
 - b. deception
 - c. diversion
 - d. emersion
 - e. conversion
4. Alteration of prescriptions by patients is termed:
 - a. divesture
 - b. deception
 - c. diversion
 - d. emersion
 - e. conversion
5. Smuggling drugs across the borders by tourists is termed:
 - a. divesture
 - b. deception
 - c. diversion
 - d. emersion
 - e. coyotes

6. Historically, attempts to control drugs may be a method to control:
 - a. doctors
 - b. immigrants
 - c. prisons
 - d. women
 - e. coyotes

7. Making bad judgments because of the effects of intoxication would fit which model?
 - a. psychological
 - b. sociological
 - c. capitalistic
 - d. diversion
 - e. psychopharmacological

8. Disinhibition due to the effects of a drug would fit which model?
 - a. systemic
 - b. common cause
 - c. diversion
 - d. incapacitation
 - e. psychopharmacological

9. Which of the following would support the Economic Motivation Model?
 - a. prostitution
 - b. restitution
 - c. prostration
 - d. prostation
 - e. ASPD

10. Robberies of dealers is characteristic of which model of the drug-crime relationship?
 - a. endemic
 - b. systemic
 - c. decentralized
 - d. economic motivation
 - e. reaction

11. Deviant individuals may use drugs to:
- a. self-conceptualize
 - b. self select
 - c. create ASPD
 - d. self-medicate
 - e. dilute ASPD
12. Which of the following is characteristic of the professional criminal lifestyle?
- a. working periodically
 - b. being unmarried
 - c. being mobile
 - d. all of the above
 - e. none of the above
13. The Common Cause Model postulates that substance use and crime _____ have a direct causal link.
- a. should
 - b. could
 - c. may
 - d. do
 - e. do not
14. Which of the following is the common link between crime and drug use?
- a. being male
 - b. being female
 - c. being old
 - d. being poor
 - e. being a prostitute
15. Which of the following situations is likely to create both greater rates of crime and drug use?
- a. bars
 - b. sports stadiums
 - c. at night
 - d. all of the above
 - e. none of the above

16. Researchers have concluded that:
 - a. marijuana leads to aggressive behaviors
 - b. marijuana does not lead to aggressive behaviors
 - c. marijuana leads to crime
 - d. all of the above
 - e. none of the above
17. In a nationally representative sample of youth, what percent reported committing serious crimes and using hard drugs?
 - a. 63 percent
 - b. 0 percent
 - c. 50 percent
 - d. 20 percent
 - e. 5 percent
18. Which of the following drugs is strongly related to violence?
 - a. marijuana
 - b. alcohol
 - c. LSD
 - d. all of the above
 - e. none of the above
19. What percent of jail inmates in 1996 reported they were under the influence of drugs at the time of their arrest?
 - a. one-half
 - b. two-thirds
 - c. one-third
 - d. one-fourth
 - e. one-tenth
20. Drug-related homicides appear to involve:
 - a. young men
 - b. African American men
 - c. Hispanic men
 - d. all of the above
 - e. none of the above

21. Longitudinal studies that have examined the temporal associations between drug use and crime report:
- a. vague findings
 - b. mixed findings
 - c. strong findings
 - d. direct findings
 - e. systemic findings
22. Studies of animals demonstrate that low to moderate doses of alcohol:
- a. cause sleep
 - b. cause drowsiness
 - c. decrease aggressiveness
 - d. increase aggressiveness
 - e. produce the same effects in humans
23. Acute intoxication by alcohol is related to aggression when a person is:
- a. driving
 - b. sleeping
 - c. provoked
 - d. depressed
 - e. manic
24. Which of the following has not received strong support for the drug violence association?
- a. alcohol
 - b. amphetamines
 - c. barbiturates
 - d. tranquilizers
 - e. heroin
25. Support for the Economic Motivation Model comes from literature on:
- a. PCP
 - b. heroin
 - c. tranquilizers
 - d. cocaine
 - e. marijuana

26. The Economic Motivation Model has not been supported among:
- a. females
 - b. traffickers
 - c. dealers
 - d. prostitutes
 - e. adolescents
27. The systemic model explains drug-related crime as resulting from negative interactions in:
- a. chemicals
 - b. gangs
 - c. society
 - d. the illegal drug market
 - e. the system
28. Systemic violence is associated with whatever drug is most:
- a. potent
 - b. popular
 - c. prevalent
 - d. persistent
 - e. pure
29. Researchers have identified a problem behavioral syndrome that includes:
- a. stealing
 - b. cigarette use
 - c. precocious sexual behavior
 - d. all of the above
 - e. none of the above
30. Clinical and community data support a comorbidity between alcohol/drug use and:
- a. ASPD
 - b. PTSD
 - c. DPSA
 - d. DSM
 - e. ADAM

31. What percent of those interviewed met the DSM-II-R diagnosis of abuse on dependence for a least one substance?
- a. 25
 - b. 50
 - c. 95
 - d. 60
 - e. 5
32. Which of the following factors was not found in the National Research Council Report as childhood risk factors for violence?
- a. impulsiveness
 - b. ethnicity
 - c. peer rejection
 - d. risk taking
 - e. availability of weapons
33. Risk factors for alcoholism and violence differ by:
- a. ASPD
 - b. very little
 - c. geography
 - d. ethnicity
 - e. gender
34. The DUF/ADAM study indicated that what percent of females arrested for homicide tested positive for drugs?
- a. 65
 - b. 40
 - c. 90
 - d. 10
 - e. none of the above
35. Which of the following models is completely absent from European studies?
- a. psychopharmacological
 - b. economic
 - c. systemic
 - d. common cause
 - e. criminological