Breaking the Cycle of Drug Use Among Juvenile Offenders

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Introduction and Purpose

Background and Context

For over two decades, researchers, clinicians and juvenile justice program administrators have been aware of the consistent relationship between drug use and juvenile crime. There have been many attempts to document, understand and intervene with this cycle. These attempts have usually promised much, but their success is often unknown or not documented with methodologically rigorous scientific research.

Regardless of the causal nature of the relationship between juvenile drug use and crime and the many correlates involved, the consequences are severe. Drug use among juvenile delinquents appears strongly related to other social and psychological problems. Drug abuse results in the worsening of school performance and family relationships and also increases interaction with drug using peers.[1] Drug use also appears to be associated with a number of delinquent behaviors (research findings along with the Drug Use Forecasting (DUF) data strongly suggest that a high proportion--likely a majority of juveniles processed by the juvenile court--have recently used illegal drugs). Juvenile drug use appears to be related to recurring, chronic and violent delinquency that continues into adulthood.[2] The Juvenile Justice System is, therefore, a viable point of entry for a comprehensive service system designed to break the cycle of drug use and juvenile crime.

Very few juvenile justice jurisdictions provide appropriate substance abuse treatment services for their youth. Thornberry et al.,[3] found treatment for adolescent drug offenders was available in less than 40 percent of the 3,000 public and private juvenile detention, correctional, and shelter facilities across the United States.[a] Jurisdictions who do provide treatment generally only offer access to support group services such as Alcoholics Anonymous, Narcotics Anonymous, or drug testing.[4] While a few settings conduct individual or group sessions for substance abusing juveniles, these facilities do not generally conduct comprehensive assessments of treatment needs or plan and carry out individualized treatment programs along a continuum of care. Any intervention system must be clearly aware of and logically incorporate the etiology, correlates and consequences of the drug-crime relationship in its proposed solution for juvenile drug abuse and its consequent behaviors.

Purpose

The two primary purposes of this paper are to summarize existing knowledge about programmatic attempts to intervene in the juvenile drug-crime cycle and to propose intervention models with the greatest likelihood of successfully addressing the cycle. Specifically, the paper will:

- Provide a brief overview of the juvenile drug-crime cycle and a description of the current juvenile drug-using population.
- Review programmatic attempts to break the drug-crime cycle for juvenile offenders, including an examination of the Juvenile Justice System process and graduated sanctions continuum.

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[a] see also Dembo et al., 1993

- Recommend intervention models or modalities that have received the strongest empirical support for effectiveness. The presentation and recommendations will include a focus on the specific elements of successful interventions as well as integrative programs that combine these elements.

This paper is based on an extensive review of existing literature and research reports and interviews with researchers who are active in developing and evaluating programs designed to break the drug-crime cycle among juveniles. Please see Appendix A for a listing of conducted interviews.

The Juvenile Drug-Crime Cycle and the Current Juvenile Drug-Using Population

The existence of the drug-crime cycle among juveniles is broadly accepted. Researchers examining the relationship have generally concluded that its causal nature is both very complex and recursive.[5] Development and implementation of successful intervention programs must include a knowledge of the unique characteristics of the juvenile drug-using population as well as known correlates affecting juvenile drug use and treatment outcomes.

Compared to previous generations, the current generation of adolescents 1) use drugs at an earlier age; 2) are less involved with opiates and have more involvement with marijuana, alcohol and polydrug use;[6] 3) have shorter abuse histories combined with more family deviance and experience of past psychological treatment; 4) tend to be more fascinated with the drug culture and lifestyle and less fatigued with the negative consequences of drug use; 5) have a greater sense of their own invulnerability, and 6) require more emphasis on addressing educational and family/parental support in the treatment process.[7]

The extent of juvenile drug use has been documented by both self-report and biologic testing data (such as urine and hair testing). In a study of non-incarcerated delinquents in Miami, Florida, Inciardi and his colleagues[8] found that about three-fourths of both males and females self-reported cocaine use at least weekly. Comparing self-reported use with hair analysis results, Dembo and associates[9] found that adolescents accurately reported their use of soft drugs such as marijuana, but under-reported use of hard drugs such as heroin. Data from the 1997 DUF shows the extensive and increasing prevalence of drug use among juvenile male arrestees/detainees from many cities across the United States. For example, in early 1992, less than 30 percent of juvenile male arrestees in Washington, D.C., had an illegal drug detected in their urine. By mid-1996, the proportion of urine samples containing an illegal drug had reached 70 percent. This doubling trend in the proportion of urine samples containing an illegal drug occurred in most cities monitored by the project. Marijuana was by far the most common drug found. Analyses of the data from the National Youth Survey also show a strong correlation between serious drug use and serious delinquent behavior.[10] Johnson and his colleagues[11] found that only 3 percent of nondelinquents used cocaine, whereas 23 percent of those with multiple delinquency index crimes were current cocaine users.[b]

[b]These researchers found a correlation of .53 between delinquency and drug use (see also Johnson et al., 1991).

The Juvenile Justice System Process

A brief overview of the Juvenile Justice System will provide a context for understanding where and how substance abuse services can be appropriately offered. The Juvenile Justice System in most states is comprised of six phases. Drug abuse treatment services can be and are offered at any stage of the process. Cultural and ethnicity factors affect each phase of the Juvenile Justice System. Increased awareness of cultural differences and how they might affect a juvenile's progress through the justice system is essential (for a discussion of issues specifically related to culture and ethnicity, please see Appendix B). The phases of the Juvenile Justice System follow:

1) Intake - A pre-adjudication intake officer at a local juvenile court decides to release the juvenile to parental custody, place him/her on informal probation, or detain the youth in a detention facility. Many juveniles are also counseled by the intake officer and diverted into other community agencies. 2) Social investigation - A probation officer examines the juvenile's family, education, history of delinquency, etc., for the juvenile court. Some investigations are supplemented by reports from child advocates or court-appointed social workers. 3) Fact-finding hearing - A juvenile appears before a judge to review the complaint and the social investigation. Special Juvenile Drug Courts have been established in some locations to facilitate the evaluation and adjudication of drug-related offenses. 4) Adjudication - Based on the fact-finding hearing, the court determines whether or not the juvenile is a delinquent. The judge's decision is strongly influenced by the intake worker's recommendations. 5) Disposition - If the juvenile is determined to be delinquent, a hearing is held where the judge decides the disposition of the case. Options include releasing the delinquent with a warning, community supervision, or commitment to a specialized treatment facility or detention facility such as a state training school, boot camp, or community residential facility. Recent trends favor placing youth in detention facilities.[12] 6) Continuing Care - After the juvenile has completed the court's recommendations, he or she is often released to the supervision of a variety of aftercare service providers including counseling, school attendance, or other structured social activities.

Each of these phases will be examined relative to their role in breaking the juvenile drug-crime cycle. As Juvenile Justice System phases and their relationship to drug treatment interventions are described, it is important to recognize three overarching concepts and strategies that affect each of the stages: case management, systems collaboration, and graduated sanctions. These concepts/strategies are raised and discussed in the paper within the Juvenile Justice System phase where each would be primarily applied. Case management and systems collaboration are discussed during the Social Investigation phase, and graduated sanctions are discussed following the Adjudication phase and proceeding Disposition.

System Contact: The Juvenile Justice System and Court Supervision at Intake

Intake is the first point of official system contact between youth and the Juvenile Justice System. The etiology of youth access into the Juvenile Justice System is varied, and may include parental referral based on incorrigible youth behavior, teacher referral, arrest as a result of an accusation within an on-going criminal investigation, or arrest as a result of an observed legal infraction. As noted above, Juvenile Justice System involvement at this stage involves pre-

adjudication intake officers of the local juvenile court. Decisions to dismiss, divert to various collaborative community agencies, or move to disposition/detention are usually made by the intake officer.

Intake Procedures

The Office of Juvenile Justice and Delinquency Prevention's (OJJDP) National Juvenile Justice Action Plan[13] outlines several characteristics which any system must include in order to adequately address the comprehensive needs of juvenile offenders. The three characteristics relating to the intake process follow: 1) The system must include a single point of entry which screens and assesses the needs of drug-involved youth at the time of intake. Currently, most systems of treatment are decentralized with multiple points of entry, resulting in service gaps, provision of inappropriate services, or unnecessary duplication of services.[14] Failure to provide this single point of entry results in major gaps in problem identification, assessment, referral, and overall access to services by youth in need of drug treatment. 2) The Action Plan calls for immediate and comprehensive assessment. Supporting this contention, the OJJDP's study of risk assessment in 14 states found that, on average, 31 percent of incarcerated youth could be safely placed in less secure settings, resulting in more appropriate rehabilitation in a less restrictive environment. Considerable financial savings would be an added bonus. 3) Assessment should be culturally sensitive and designed to identify environmental, familial, personal, and systemic factors which contribute to delinquency and substance use.[15]

Social Investigation: The Role of Assessment and Case Management

Assessment

Drug treatment services can be provided at several points along the juvenile justice continuum. At the point of entry into the Juvenile Justice System--intake--the pre-adjudication intake officer provides a critical gatekeeping function. While there may be a primary interest in identifying and intervening with drug abuse problems, such problems are usually enmeshed within a wide variety of other problems. Thus, in order to successfully address substance abuse in this population, comprehensive assessment is necessary. A poorly conducted assessment, using techniques and measurement instruments which do not consider the juvenile's entire life situation in a holistic manner, are destined to produce faulty and inadequate recommendations and decisions. Because the recommendations of the pre-adjudication intake officer often heavily affect judicial decisions, it is imperative that intake personnel be thoroughly trained in the use of comprehensive assessment tools. More careful screening mechanisms can not only help target those services which are most needed by juveniles, they can also prevent system duplication, which leads to inefficient and poorly coordinated service delivery. In addition, by properly assessing and coordinating these point-of-entry services, the Juvenile Justice System can more effectively intervene to prevent youth from increasing future delinquency.

Community Assessment Centers

While the OJJDP Action Plan calls for the establishment of community assessment centers, few jurisdictions currently provide a single point of system entry or comprehensive screening and assessment for juveniles during the intake process. One notable exception to this situation is the Juvenile Assessment Center (JAC). The JAC began in Tampa, Florida, but has spread to nine other Florida locations. While services in each location vary, the basic elements and functions of the model include 1) centralized location of relevant agencies which can

conveniently provide needed services to at-risk youth; 2) screening, diagnosis, and, if appropriate, linkage of arrested and high-risk youth with area service providers; 3) case management of juveniles assigned to diversion programs within the Juvenile Justice System, and 4) tracking (usually limited to the purpose of determining referral disposition).[16]

Ideally, the JAC is designed to move juveniles through the system in the following way: law enforcement officers bring the arrested youth to the JAC where he or she is processed by Department of Juvenile Justice detention intake and JAC assessor personnel. Juvenile Assessment Center assessors conduct Breathalyzer and urine tests for alcohol and drugs. Substance abuse and mental health history are also collected. In addition, the juvenile undergoes preliminary screening using the National Institute on Drug Abuse (NIDA) Problem Oriented Screening Instrument for Teenagers (POSIT) to identify potential problems in 10 different psychosocial functioning areas (the POSIT is described in greater detail below). Based on the results of this preliminary screening process, in-depth assessments are conducted in problem areas such as drug and alcohol abuse, mental illness, physical and sexual victimization, and delinquency. On the basis of assessment findings, current charges and arrest history, intake staff determine whether the youth should be placed in secure detention, home detention, or released into the care of a parent, guardian, or responsible relative. When a minor is not appropriate for detention, he or she is assigned to the misdemeanor case management staff at the JAC. This unit reviews the arrest histories and current charges of the youth to determine his or her eligibility for arbitration or various diversion programs which exist within the local Juvenile Justice System. Juvenile Assessment Center misdemeanor case managers follow the case until the juvenile successfully completes the program to which he or she is assigned. If the program is not successfully completed, the case manager has the option to file a delinquency petition, and the case is turned over to the Department of Juvenile Justice case manager.

Assessment Instruments

The number of adolescent drug and alcohol assessment tools has grown rapidly in recent years,[17] with over 30 tools currently available for both screening and assessment. This increasing growth has made selection of an appropriate screening instrument more difficult than ever before. "The rate of development of this new generation of measures has out-paced efforts to critically evaluate them, leaving the field somewhat at a loss as to their absolute and relative merits."[c]

Drug assessment tools are commonly divided into screening and comprehensive assessment instruments. Several full-range assessment systems have also been designed to combine screening, diagnostic evaluation, and comprehensive assessment in one package. The primary purpose of screening is to determine the need for a more comprehensive assessment. Thus, it is inappropriate to use screening instruments to formulate a diagnosis or decide treatment needs. If the screening instrument indicates a drug problem, a more comprehensive assessment would be indicated. At minimum, the comprehensive assessment should include: 1) an in-depth examination of the severity and nature of the drug abuse identified by the screening process; 2) a more thorough assessment of additional problems flagged during the screening and additional inquiry into problems that may not have been included in the screening, and 3) a strong effort to use multiple methods and sources, with special emphasis on including the youth's family in the assessment, using standardized assessment instruments, and obtaining prior assessments and other relevant records.[18] Appendix B includes an overview of stand-alone substance abuse

[c]Stinchfield & Winters, 1997, p. 63

screening tools and mid-range instruments. If used alone, it is recommended that both the screening tools and the mid-range substance abuse instruments be supplemented with a more comprehensive assessment of the juvenile's broader psychosocial needs.[d] Two full-range assessment systems commonly used with juvenile delinquent populations are discussed below.

- Full-Range Assessment Systems

Assessment systems integrate screening, diagnosis, and comprehensive assessment into one package. Advantages include rapid referral of adolescents to more in-depth assessment, standardization of the assessment and referral process, assurance that an adolescent's comprehensive needs have been adequately addressed, and the ability to evaluate client needs with the assurance that those needs are adequately addressed through referral to appropriate adjunctive services. Disadvantages include higher costs for commercial assessment instruments and need for adequate staff expertise and training to administer and interpret the assessment instruments.[19]

1. Adolescent Assessment/Referral System (AARS)

The National Institute on Drug Abuse initiated the AARS in order to identify current assessment instruments that were reliable and valid and that could be used to assess the broader psychosocial problem areas of drug involved youth and guide in the development of treatment decisions.[20] The AARS has three components which are described below.

- The *Problem Oriented Screening Instrument for Teenagers (POSIT)* is available in Spanish and English, and is a 139-item, yes/no, self-administered instrument which explores difficulties in 10 potentially problematic areas of functioning: substance use/abuse, physical health status, mental health status, family relationships, peer relations, educational status, vocational status, social skills, leisure and recreation, and aggressive behavior and delinquency. The POSIT is designed to quickly identify problems in any functional area requiring further assessments and/or treatment. A reliability study indicates that the POSIT consistently identifies potentially troubled youth who are in need of in-depth assessment and intervention or treatment services.[21]

  Included with the POSIT is the Client Personal History Questionnaire (CPHQ), which identifies client demographics, history of juvenile justice and mental health contacts, school performance, health care utilization and current life stressors. Academic information and school discipline information are gathered when available.

- The *Comprehensive Assessment Battery (CAB)* includes a variety of psychometrically validated assessment tools which probe more deeply into each of the ten problem areas identified by the POSIT. Examples of recommended CAB assessment instruments are the Personal Experience Inventory (PEI) for drug abuse,[22] the Adolescent Diagnostic Interview (ADI) for drug abuse,[23] and the Family Assessment Measure (FAM) for family relations.[24]

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[d]Please refer to Leccese & Waldron (1994) and Winters & Stinchfield (1995) for a comprehensive review of adolescent substance abuse measurement instruments, including detailed validity and reliability information.

- *Treatment Planning.* The AARS recommends that staff develop a treatment plan after completing the assessment phase. The manual guides programs in developing their own local Directory of Adolescent Services, which assists the case manager or referral agent in locating appropriate resources and placing troubled youth in services which match their treatment needs.

2. Minnesota Chemical Dependency Adolescent Assessment Package (MCDAAP)

Like the AARS, the MCDAAP attempts to provide both screening and more intensive assessment. However, the MCDAAP differs from the AARS in several ways. "The MCDAAP tools are primarily geared to measure drug abuse characteristics and related problems and only screens for coexisting mental and behavioral disorders; the MCDAAP screening tool contains fewer items than the POSIT; and the MCDAAP does not include resources related to additional assessment and treatment referral."[e] The MCDAAP has three components which are described below.

- The *Personal Experience Screening Questionnaire (PESQ)*[25] is a 40 item, self-report screening instrument which is primarily designed to estimate the potential need for drug treatment services among adolescents. The instrument evaluates problem severity (eighteen items), psychosocial problems (eight items), drug use history (four items), defensiveness or "faking good" (five items), and infrequency--"faking bad" or inattention (three items). The problem severity index measures behaviors, attitudes and consequences related to alcohol and other drug use by adolescents. The PESQ's advantages include its format, brevity, and relatively easy reading level (fourth grade). Evaluation indicates internal consistency reliability, accurate prediction of comprehensive drug assessment need, and follow-through of referral.[26]

- *Adolescent Diagnostic Interview (ADI).* The ADI assesses symptoms found in substance use disorders as described in DSM-IV. The interview format includes substance abuse history and signs of abuse or dependence in all major drug categories. The ADI also screens other mental health disorders in addition to several domains of functioning (e.g., school performance, peer and family relationships, legal problems, and leisure activities).[27] Evaluation supports inter-rater and test-retest reliability, as well as criterion validity.[28]

- *Personal Experience Inventory (PEI).* The PEI is a multi-scale instrument which identifies problems and makes referral and treatment recommendations based on a differential diagnosis of the client's problems. It is divided into two sections: Chemical Involvement Problem Severity and Psychosocial Risk Factors. The PEI measures drug misuse problem severity, drug use frequency, and psychosocial and environmental correlates of adolescent drug misuse (e.g., negative self-image, social isolation, physical and sexual abuse, estrangement from family). Several additional clinical problems are also measured, including eating disorders, suicide potential, other mental health symptoms, and parental history of drug abuse. "PEI

[e]Winters & Stinchfield, 1995, p. 153.

scores have been found to be highly correlated with other measures of drug abuse problem severity and psychosocial risk factors, independent recommendations regarding need for drug abuse treatment, and independent clinical diagnoses."[f] The PEI is recommended by a NIDA publication for use in comprehensive evaluation of adolescent substance use/abuse.[29]

Case Management

Case management provides one way for Juvenile Justice Systems to coordinate the comprehensive needs of juveniles. Case management has emerged as an intake, during-treatment and post-treatment strategy which can connect clients to needed resources throughout the service continuum, resulting in more rapid access to services,[30] higher levels of goal attainment,[31] longer lengths of stay in treatment,[32] improved drug use outcomes,[33] improved employment functioning[34] and improved connection to needed resources over time[35] when compared to standard treatment services. Due to its individualized nature, case management appears particularly appropriate in meeting the needs of special populations such as homeless persons,[36] IV drug users,[37] persons with AIDS,[38] and youth with dual diagnoses.[39] Research suggests that case management may be effective as an adjunct to substance abuse treatment for two reasons: 1) retention in treatment is generally associated with better outcomes, and one of case management's primary goals is to keep the client engaged in the treatment process,[40] and 2) treatment is more likely to succeed when a client's non-substance abuse problems are also being addressed (e.g., school performance, family problems, etc.).[41]

Case managers (CMs) support and reinforce treatment goals throughout the treatment continuum by providing the following functions: 1) Engagement - Case managers orient, support, and meet immediate client needs, as well as serve as a linkage to resources and services; 2) Assessment - Case managers assess the appropriateness and eligibility of both internal and external resources. Some CMs provide the majority of assessment services, including the collection of information from the family, school, and court systems;[42] 3) Planning, Goal-Setting, and Implementation - While CMs often work as part of a treatment team, they take a broad view of client needs and strengths, looking beyond primary therapy to the longer-term recovery needs of the client. CMs assist in the creation and maintenance of the treatment plan. This approach is particularly valuable since the CM can follow the client as he or she moves through and at times beyond the treatment continuum, acting as a system guide to ensure the client obtains needed resources and stays motivated to maintain treatment progress ; 4) Linking, Monitoring, and Advocacy - CMs can enhance the client's commitment to seeking needed resources, help the client implement the plans derived from each contact, troubleshoot obstacles which may prevent client success, and model, rehearse, and summarize the implementation of those plans.[43] CMs can also help navigate the often confusing social service system and advocate for needed resources where necessary, and 5) Disengagement - The CM helps the client summarize and review progress toward goals, with a focus on treatment gains and planning for the client to continue to access services on his or her own.

At post-treatment, the case manager might help the adolescent reintegrate with their family or an out-of-home placement, coordinate care between staff and services at other agencies, and/or help with reintegration into the school system. In addition, case managers may intervene in crisis situations or assist the youth in finding work and/or appropriate drug-free friends and

[f] Winters & Stinchfield, 1995, p. 9 .

leisure activities. Intensive case management services are most critical during the vulnerable 2-month period following discharge from primary treatment, with the purpose of providing continuity of care while simultaneously working to move the adolescent toward independence.[44]

✓[g] While case management has been used in the delivery of residential[45] and inpatient[46] substance abuse treatment services, little is known about its effectiveness in juvenile justice settings, particularly with adolescent populations. Conceptually, case management could be an important part of the Juvenile Justice System. It could provide a coordinated control point for implementation of judicial decisions and reporting back to the judge and/or probation officer. Several promising case management programs designed to assist high-risk, drug abusing adolescents are described below.

The Youth Evaluation Services (YES)[47]

YES was an integrated assessment and case management system. Its primary goal was to coordinate services for youth with substance abuse problems while collecting data on treatment utilization, service costs, and treatment outcomes. Adolescents were screened and comprehensively assessed using the Adolescent Assessment Referral System (AARS) described earlier in this paper. This information was supplemented by data gathered from parents, case managers, and schools. YES personnel formulated a treatment plan based on the results of the assessment process utilizing a Treatment Matching Criteria system. Finally, adolescents were referred to various substance abuse treatment services. Following acceptance of the treatment plan by the client and his or her parents, the case managers began performing a variety of client-specific functions including monitoring client progress, linking clients to appropriate services, coordinating aftercare services, and advocating for client needs. Formal monitoring of treatment and progress toward recovery continued at regular intervals for up to 18 months.

✓ Treatment utilization reviews found that higher costs and longer lengths of stay were incurred by clients with higher levels of substance involvement, family dysfunction, mental health problems, and physical health conditions. The analysis found that 20 percent of the clients accounted for 90 percent of the treatment costs, primarily due to unit costs and length of stay in inpatient treatment facilities. Treatment outcomes were not addressed in this phase of the study.

The Iowa Case Management Model[48]

This model assists clients in maintaining a drug-free lifestyle following discharge from an inpatient treatment facility. The case manager targets both individual and environmental outcomes for change in the client's system. The Iowa Case Management philosophy emerges from the principles of strengths- and solution-based therapeutic models. Client-driven goals are described in behavioral terms using solution oriented language which emphasizes the presence of positive behaviors rather than the elimination of negative ones. The program is divided into three primary phases conducted over a one-year period: 1) active case management with regular case manager/client meetings; 2) transitional case management with less frequent meetings, and 3) self-directed case management.

Case management functions include: 1) Assessment and monitoring - using assessments to discover clients' strengths, resources, ambitions, goals, and past successes, as opposed to their problems and past failures; (2) Negotiating and contracting - where the case manager and client

[g]Checkmarks, "✓", will be used throughout this paper to indicate evaluation sections of the current programs/treatment issues being discussed.

jointly develop a solution plan, which includes information on levels of involvement and responsibilities of each party; (3) Solution based problem solving; 4) Planning and referral - using an Individual Solution Plan to develop referrals to necessary services, and 5) Evaluation of process and outcomes - monitoring and providing feedback on activity or goal achievement.
✓ This program is currently undergoing a comprehensive outcome evaluation to compare this approach with a no-treatment condition.

Effective case management requires the development and utilization of collaborative agencies within the community. Based on assessment, a case manager develops and recommends intervention strategies that draw on the agencies providing needed services.

Systems Collaboration Strategies[h]

Recognizing the multiple needs of drug-using juveniles and very limited community resources, many communities are developing interorganizational collaboratives. Interorganizational collaborative partnerships bring together people who see different aspects of a problem and who bring unique expertise to the creation of solutions. The result is a network of resource and referral sources working together to meet identified needs. Community-based collaborative efforts ensure that services will 1) incorporate community-specific strengths, 2) be accessible to the target population, 3) have relevance considering the community's unique needs and structures, and 4) increase ownership and accountability with all parties.[49]

Collaborative Components

Available literature identifies several interrelated components which guide and affect interorganizational collaboratives. Each of these components is equally important, and should be considered when collaborative partnerships are being developed:[50]

Issue Identification

Collaborative partnerships are formed around needs within communities or populations. Part of the collaborative process is to identify these needs, develop a joint vision with set goals to meet such needs, and then create or strengthen strategies which bring together resources to address the identified needs.

Membership Formation and Leadership

Successful collaboration depends on partners who contribute resources, perspective, expertise, and diversity to the overall effort. These can be service providers, community members, religious leaders, elected officials, administrators, front-line staff, adolescents, local businesspeople, schools, and law enforcement officers. Effort should be made to bring all key stakeholders into planning and implementation of collaborative agendas.

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[h]Reviews of context-specific collaboration strategies can be found as follows: school based (Martin, 1994); mental health and vocational rehabilitation (Weinstock, 1995), and neighborhood support networks (Center for the Study of Social Policy, 1996). For further discussion of Principle-Centered Community Initiatives for building/revitalizing communities, as well as community development in general, contact the Covey Leadership Center, Inc.

Individual collaborative members must have some level of authority and credibility within their own agencies as well as within the collaborative. They must acknowledge and be committed to the interdependence of collaborative partners and effectively negotiate conflicting needs. Collaborative leaders must be open and flexible, identify and incorporate diverse perspectives, champion the larger vision and mediate conflict.

Structures and Systems; Strategies, Purpose and Tasks

Agreed-upon structures enable collaboratives to set goals, develop strategies, and achieve desired outcomes. The goals of strategy development are to share work and experience among partners as collaboratives seek to improve or increase the impact of their services and programs. Members and leaders should assess the effectiveness of individual interventions and periodically consider how various interventions fit into the larger vision of the collaborative.

Environmental Linkages

Just as collaboration between partners is necessary, the collaboration as a whole should have recognized links with the greater community and society. These linkages provide two-way streams of information, funds, and services without which the collaborative cannot be effective.

Resource Development

In seeking to meet their goals, collaboratives must effectively utilize existing resources and outline strategies to replenish them as needed. Resource development activity might include assessment/establishment/application of and for interagency funding pools, federal grants or matching funds, federal or state demonstration funds, block-grant applications, private foundation funding and local contributions.

✓ In evaluating systems collaboration programs, Bailey and Koney[51] state that interorganizational collaboration may offer the most functional solution to achieving organizational success within a changing and uncertain societal framework. According to Bailey and Koney, these collaboratives can 1) impact public policy through a larger and stronger advocacy base, 2) increase funding options through accessing funds stipulating collaborative partnerships, 3) reduce wasteful duplication of services, and 4) enhance service delivery by combining expertise and involving the community in program development.

In addressing the importance of systems integration with juveniles specifically, Dembo and Rivers[52] note, "[t]here is...a need to improve the linkages and coordination among various community agencies dealing with "high-risk" youth—including law enforcement, the courts, schools, human service agencies, and treatment programs. Such an effort would reduce duplication of services and barriers to treatment, and respond to youth in a comprehensive manner."[1] The commitment of resources (human, physical, or financial) to establish, maintain, and improve such networks and infrastructures should therefore be a priority for all systems working with juveniles and their families.

Collaboration and the Juvenile Justice System

The Juvenile Justice System can integrate with a collaborative model in a variety of ways, through diversion, a Juvenile Drug Court, or juvenile probation program. As will be noted in the

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[1]Dembo, 1996, p. 87.

following sections on supervision and treatment programs, mandated treatment appears related to treatment retention and positive outcome. The leadership/monitoring of the Juvenile Justice System could play a crucial role in the successful functioning of a collaborative model by helping to ensure that assessment recommendations are carried out, and that the juvenile actually receives the recommended/mandated services. It is important that in its leadership/monitoring role, the Juvenile Justice System recommend and utilize the professional services available through community collaborative agencies. Such agencies are integral partners in providing collaborative resources and expertise to the Juvenile Justice System.

Dismissal and/or Diversion Programs

At the conclusion of intake and assessment, intake officers and/or case managers generally have the option of 1) dismissal of the case with no further action, 2) utilization of diversion programs, or 3) referral to further Juvenile Justice System processing. Diversion programs include sending juveniles home in parental custody, placing them on informal probation, or diverting them to another facility or community program. Although judges and police officers often utilize diversion programs, the most common utilization of diversion programs is through intake officers after completion of assessment. Diversion programs generally fall under the category of early intervention, in that a juvenile's behavior is not yet serious enough to merit formal entry into the Juvenile Justice System. This period offers a crucial time to provide interventions which can successfully move high-risk adolescents away from more serious drug-abusing or delinquency behaviors. Dembo et al.[53] argue that resources are best placed in assessing and providing needed services to adolescents and their families at the earliest, and preferably the first, point of contact with the Juvenile Justice System. These services are more likely to be cost-efficient and effective than those targeted toward juveniles who have already had repeated exposure to the juvenile court system. Several reviewers[54j] have gone further to maintain that prevention and early intervention services should be specifically targeted toward high-risk youth. This makes good social and economic sense since "the determinants of drug abuse are generally the same as the determinants of delinquency, school dropout, and unprotected sexual activity."[k]

✓ In a major review of the early intervention literature, Klitzner and his colleagues[55l] found a lack of consensus in defining what constitutes early intervention and determining how it differs from prevention or treatment. Those concerns aside, Klitzner and his colleagues concluded that early intervention programs are ideally targeted toward individuals or groups 1) whose drug or alcohol use puts them at high risk for problem behaviors and their consequences, 2) whose drug or alcohol use has created clinically significant dysfunction or outcomes, and 3) who demonstrate certain problem behaviors that lead to use of drugs or alcohol (e.g., spending time with drug-using peers).[m]

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[j]See also Henggeler, 1997.

[k]Henggeler, 1997, p. 261.

[l]See also Dembo et al., 1993.

[m] See also Brewer et al., 1995, for a comprehensive review of early intervention programs.

Klitzner and his colleagues found relatively few pre-adjudication or postadjudication early intervention programs in the Juvenile Justice System, perhaps because the system does not become concerned over the behavior of adolescents until they have appeared in court several times.[56] The majority of the programs which did exist at the time of the review had not been formally evaluated.[57]

Fact-Finding Hearings and Adjudication: Judicial Processing

Decisions made to refer a juvenile for formal hearings are usually based on social investigation and assessment. The judge will generally use the assessment and arrest report as well as other facts to determine disposition and, if necessary, sentencing. In most jurisdictions, fact-finding and adjudication take place in a conventional juvenile court system. However, in recent years, a specialized court called the Juvenile Drug Court has evolved. While Juvenile Drug Courts utilize the general juvenile justice processes described in this paper (including the possible use of case management, systems collaboration and graduated sanctions), it is important to briefly examine the unique aspects of this new and developing trend in juvenile justice.

Juvenile Drug Courts

In an attempt to play a more active role in breaking the linkage between drug use and crime, the judicial system developed the Drug Court. Drug Courts allow judges a more active role than that provided by previous options such as mandated lengthy sentences, etc.[n] Judges draw on a variety of professionals in assessing needs and recommending services, and are then actively involved in the decision making process on what services are to be received, monitoring compliance and applying sanctions when a lack of compliance is evident.[o] Six states currently operate juvenile Drug Courts with the greatest concentration in Florida (four) and California (two). A recent Government Accounting Office (GAO) report[58] indicates that 16 percent of Drug Courts in the U.S. serve juveniles either as a separate program or as part of an overall community Drug Court program.

The general philosophy of Drug Courts--including an emphasis on an active judicial role in service decisions and management–was developed within an adult framework. However, this philosophy is consistent with the traditional role and function of juvenile courts and juvenile court judges. Juvenile courts have traditionally focused on service interventions designed to change problem behavior rather than on punishing criminal behavior. Given the role of juvenile courts, a recent publication of the OJJDP[59] indicated that six approaches appeared to be more common to juvenile Drug Courts than regular juvenile court procedures:

1. Much earlier and more comprehensive intake assessment procedures. Procedures usually involve an initial screening and later comprehensive assessment designed to identify a wide variety of environmental, family and psycho-social functioning problems. Typically, the screening and assessment provide the basis for referral/service decisions.

[n]For a history of the involvement of the court with drug abuse, see Inciardi et al., 1996.

[o]For a recent description of Drug Courts, see Defining Drug Courts, January, 1997.

2. Greater focus on the functioning of the juvenile and the family throughout the juvenile court process. There is a recognition that the emergence of juvenile delinquency and drug use usually occurs within the context of significant family functioning problems.

3. Closer integration of the information obtained during the assessment process as it relates to the juvenile and the family. This includes collecting information on individual characteristics and well as on family behavior, interaction and functioning. Assessment is designed to result in the integration of individual and family intervention services.

4. Greater coordination between the court, treatment community, school system, and other community agencies in responding to the needs of the juvenile and the court. This strongly implies recognition of the need for active case management to try to ensure barrier-free integration and coordination of needed services.

5. More active and continuous judicial supervision of the juvenile's case and treatment process. To a significant degree, this results in the judge playing the role of case manager in assessing service needs, making referral decisions and monitoring progress.

6. Increased use of 1) immediate sanctions for noncompliance, and 2) progress incentives for both the juvenile and family. From the judicial perspective, this often provides the rationale for the effectiveness of judicial involvement. Judges often argue that it is within their power to provide immediate sanctions to help ensure compliance with required services. This argument is based on the belief that such power significantly increases the probability of improved service effectiveness through increased retention.

✓ Overall evaluations of juvenile Drug Courts have not occurred, perhaps due to their relatively short history. Researchers and the GAO have been critical of some aspects of juvenile Drug Court methodological designs. Some researchers[60] and a recent GAO report have raised significant questions abut conclusions regarding the effectiveness of Drug Courts. Inciardi and his colleagues, as well as the GAO report, expressed considerable concern regarding 1) a lack of appropriate comparison groups in Drug Court evaluation research, 2) widely varying populations involved in Drug Courts, and 3) a lack of consistent standards of assessment and referral. The GAO concluded that the 20 evaluation studies reviewed "...did not permit the GAO to reach definitive conclusions concerning the overall impact of drug courts..."[p]

However, there has been positive initial response. Enthusiasm for Drug Courts appears to be primarily based on the enthusiasm of the Attorney General's office and that of judges who, in assessment reports and interviews, indicate considerable satisfaction with the program. Drug Courts appear to give judges a strong sense of active involvement in addressing a very complex problem. It is expected that over the next few years, there will be an increase in the number of juvenile Drug Courts.

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[p]Drug Courts, 1997, p.13.

Disposition

Both the conventional Juvenile Justice System and the Juvenile Drug Court system utilize the adjudication process to determine case disposition and, if necessary, sentencing. Case disposition generally takes place within the framework of a graduated sanctions continuum.

The Graduated Sanctions Continuum

The material presented in this report focuses primarily on the need for comprehensive assessment, appropriate referral, effective interventions, and needed services along a continuum of care within a case management framework in a community where system collaboration occurs. Within this therapeutic framework, there also exists a responsibility to hold juveniles accountable for their actions and to protect the community. In addition, as the research literature documents, even with the very best assessment, services, interventions and case management, there will be individuals who do not respond to therapeutic interventions and continue to engage in drug use and delinquent behavior.

Within graduated sanctions, accountability and community protection needs are integrated with assessment, referral, service provision and case management. Assessment techniques are used to incorporate offense history and other behaviors to determine community risk from the juvenile and probability of recidivism.[q] This information then informs the final judicial decision on the types of services to be received and the delivery context.

The graduated sanctions continuum is used as part of a "carrot and stick" approach to treatment progress. If drug use and delinquency recidivism occurs at a particular level of sanctions, the application of graduated sanctions generally results in placing the individual in a higher security, more intensive therapeutic environment. Avoiding the application of graduated sanctions (and thus decreased freedoms) is seen as an incentive for treatment progress. The lowest level of juvenile justice sanction and limited therapeutic/service intervention generally occurs for first offenders with minimal drug use from two-parent families. Higher sanction levels and therapeutic/service interventions are applied to repeat offenders and/or those who are involved in violent crimes with extensive drug use histories involving cocaine and/or opiates. Within this varied point of entry into a program with graduated sanctions, it is important to recognize that all entry points should be integrated into a comprehensive program. Based on individual progress, sanctions and therapeutic/service interventions can become more or less intense.[r]

✓ *Effectiveness of Graduated Sanctions*

Lipsey and Wilson[61] recently performed a meta analysis on the effectiveness of juvenile intervention programs. Overall, they concluded that the most successful intervention programs incorporated graduated sanctions as part of a comprehensive intervention strategy. Inclusion of graduated sanction in a comprehensive program was associated with both lower drug use and lower delinquency recidivism rates. Generally, Lipsey and Wilson found such programs reduced recidivism rates between 30 and 50 percent when contrasted with some type of comparison group. However, Lipsey and Wilson,[62] as well as Krisberg and Howell,[63] noted some

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[q]For a discussion of this technique, see Wiebush et al., 1995.

[r]For a comprehensive discussion of the issue and application of graduated sanctions, see Krisberg and Howell, 1997.

qualifications to their findings. Youth who experienced significant damage to their self concept through incarceration did not appear to reduce recidivism. Thus, less severe sanctions may reduce recidivism more than incarceration. It may be that when the level of sanctions stipulating incarceration is applied, problem behavior patterns are strongly established; sufficiently intensive therapeutic/service intervention strategies have perhaps not yet been developed. Lipsey and Wilson, and Krisberg and Howell further argue that well-structured community programs may be able to offer sufficient community security without the apparently negative consequences of incarceration.

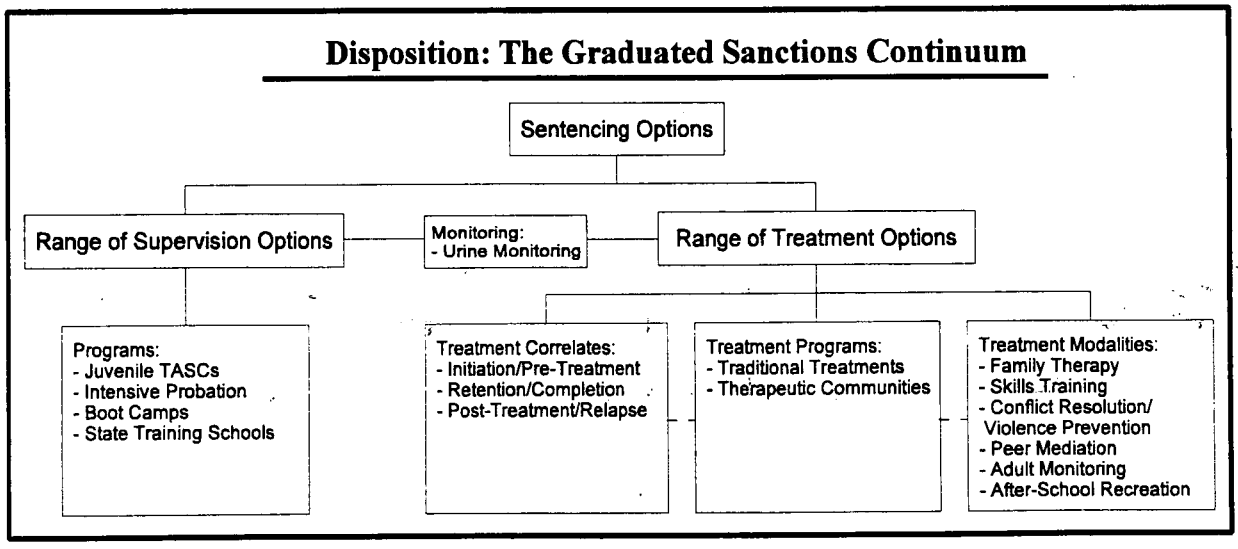
Research on the comparative cost benefits of comprehensive graduated sanctions programs has been positive. Greenwood and his colleagues at the Rand Corporation[64] imply that such programs were as effective at serious crime reduction as California's "Three Strikes" law at only 20 percent of the cost. Analysis by Rivers and Trotti[65] found that in South Carolina, reducing the movement from probation to incarceration by just five percentage points could save the state 37 million dollars.

In an era of increased demand that juveniles be tried as adults and imprisoned if convicted, the above findings on the effectiveness of graduated sanctions overall--and particularly in a community setting--are an important balance to the current emphasis on incarceration. A comprehensive program including graduated sanctions could be more effective than incarceration and much less costly.

Since many researchers argue for an intervention program that incorporates graduated sanctions, it is important to briefly review the range of sentencing options that are used as part of a comprehensive graduated sanctions program or as stand alone interventions. Specifically, we will briefly examine both supervision and treatment options.

Sentencing Options

The graduated sanctions continuum utilizes two broad intervention tracks operating simultaneously to affect juvenile offenders: supervision options and treatment options. While supervision and treatment will be discussed separately in this paper, both operate concurrently along their own continua and should be viewed as complementary and essential aspects of any



judicial processing and sentencing methodology. All supervision and treatment programs take place within the framework of graduated sanctions, and thus should be considered as part of the whole as well as programs in and of themselves.

Range of Supervision Options

Supervision options range from light to intensive and include monitoring through various means. This review will follow a light-to-intensive continuum including juvenile TASCs, intensive probation, boot camps and state training schools. In addition, special focus will be given to monitoring aspects of supervision programs through biologic testing.

- Supervision Programs

1. Juvenile TASCs

The Treatment Alternatives to Street Crime (TASC) program seeks to provide a linkage between the justice system and the drug treatment system. TASC attempts to provide screening, assessment, referral, case monitoring and reporting to the justice system. A number of juvenile TASC sites exist in the United States, and a recent TASC evaluation by Anglin and his colleagues[66] included a juvenile site in Orlando, Florida. This quasi-experimental evaluation focused on changes in drug use, crime and HIV risk behavior. The study compared a TASC group with a comparison group, which were placed on probation and received whatever services were associated with that status.

✓ The analysis found that juvenile TASC participants were significantly more likely to obtain needed services than those in the comparison group. In addition, the juvenile TASC participants were found to have significantly reduced their sexual risk behavior in comparison to the control group. The reduced sexual risks included increased use of condoms and a significant reduction in sex while high on drugs. However, the analysis did not find significant differences in any drug use change measures. In addition, no differences were found for any type of criminal behavior recidivism.

The evaluation by Anglin and his colleagues concluded that TASC, including juvenile TASC, has an overall positive benefit. However, they note that problems with comprehensive case management, community intervention resources and the lack of a coordinated continuum of care likely result in limited impact. It was further suggested that community TASC programs be integrated with local Drug Courts.

2. Intensive Probation Supervision

Probation is the most widely used form of case disposition in the juvenile court. Typically, probation involves a set of conditions the juvenile must adhere to, often including behavioral and association requirements as well as receiving needed services. Assuring compliance with these conditions is the task of a probation officer. Historical concerns regarding probation supervision include overburdened probation officers, exceedingly large case loads, high rates of recidivism, lack of appropriate assessment, lack of available needed services, overcrowding of services and limited resources to pay for services. Indeed, data did not suggest that regular juvenile probation services were effective at preventing recidivism or addressing the underlying causes or correlates of delinquent behavior.[67]

Intensive Probation Movement

Both adult and juvenile probation programs are now trying to combat high recidivism by utilizing intensive social control approaches and close monitoring. Monitoring techniques may include electronic monitoring, urine monitoring, and monitoring through personal visits and telephone calls.[s] Commentators have often noted that the mere fact of being watched so closely will likely result in increased detection of minor or technical violations. Such increases should be considered within the context of heightened monitoring.

The juvenile probation system has made some important methodological additions to the probation system focusing on assessing and using community agencies and their strengths as well as volunteers to address the juvenile problems. In addition to intensive monitoring, assessment is recommended to determine the therapeutic and human service needs of the juvenile and to find available community services. The process may involve coordinating and utilizing a wide variety of professional services available in the community, including citizens groups and volunteers. Within this framework, juvenile community probation/corrections operates not just as a monitoring office protecting the public and ensuring compliance, but also as comprehensive assessor, resource broker and advocate to and for existing services.

Such operations require comprehensive plans that enable juvenile community correction officers to have the skill and resources to 1) conduct the assessment, 2) undertake a resource inventory in the community including its mental health and drug treatment resources, and 3) match the juvenile to needed services. Meeting identified needs must include addressing the causes of the drug-crime cycle,[t] and requires officers to be able to work beyond the existing justice system and link that system to other agencies and systems in the community. Throughout this process, juvenile community correction officers must continue to use monitoring and possible sanctions to increase retention and, thereby, treatment effect.[u]

Sample Program

An example of this type of program was reported in the literature by Pennell and her colleagues in 1990. Near the end of 1982, the San Diego County Probation Department and the County District Attorney's office initiated an interagency program to serve less serious first-time offenders. The probation department entered into formal agreement with a variety of community agencies such as drug and other types of treatment programs. The program consisted of a diversion contract requiring specific behaviors and participation in needed services. Monitoring included frequent reports from the agencies and the use of graduated sanctions in response to program violations.

✓ Pennell and her colleagues reported a high degree of satisfaction with the program on the part of the Juvenile Justice System, parents and program participants. While there was an initial increase in rearrest rates after the implementation of the program (this may again illustrate the

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[s]For a general description of juvenile probation, see Siegel & Senna, 1994, pp 585-651. See also Kehoe, 1994.

[t]For example, see Catalano et al., 1991.

[u]For a description of intensive juvenile probation, see Altschuler, 1994, p. 3,4.

problem of watching too closely), the rearrest rate went down over time. Although this was a small program in one local area, it illustrates the possibility of interagency cooperation and the possibility of juvenile community corrections playing an active role in case management.

Many more of these types of programs would have to exist and be implemented before evaluations could be conducted. However, this program also provides some important suggestions for facilitating interagency cooperation. These recommendations include: 1) a clear elucidation of each participant agency's obligations and role; 2) monitoring to ensure agreements are upheld; 3) periodic training to ensure new staff understand the arrangements and enthusiastically participate; 4) monitoring the quality of services provided; 5) agreement to and monitoring of expected outcomes, and 6) recognition that it takes time to develop a functioning system and to have an impact.

3. Boot Camps

Also referred to as shock incarceration programs, boot camps were first established in the early 1980s as a viable response to prison over-crowding. Boot camps are structured on a military model, incorporating discipline, physical training, and hard labor in their program structure. Additional services (rehabilitative, drug treatment, etc.) may or may not be provided for detainees, depending on the philosophy and resources of each individual program. Reducing recidivism is seen as the primary goal of most programming.

The 1996 National Institute of Justice Research Report provided summary information about 52 boot camps, nine of which were for juveniles. Outside the military aspects, common elements in most or all of the juvenile camps in the study included case management (through probation officers or outside contractors), employment assistance and vocational training, drug-testing, family counseling and transitional programming. Though self-reports of program effectiveness were generally positive, few of the programs had specific supporting data from formal evaluations or investigations.

✓ Studies have been inconclusive regarding the effectiveness of the boot camp model with juvenile populations. Data collected on juvenile boot camps is often anecdotal or quasi-experimental.[68] Several studies of juvenile boot camp programs found that at best, comparisons between control groups and boot camp graduates showed no difference in recidivism rates. At worst, boot camp graduates had higher rates of re-entry into the justice system.[69]

The reason for this apparent lack of success may lie in 1) the historical lack of consistent aftercare provisions, 2) lack of follow-through at the local level of guidelines for model programs developed by the OJJDP, and 3) poor program development and planning in regards to community resources and support.[70] It is also argued by Henggeler and Schoenwald[71] that boot camps are ineffective at addressing or ameliorating the causes of delinquency because 1) youth are removed from their community and any support systems which could be used within the home community, and 2) youth are provided with few skills which will be of practical use upon returning to their home environment.

Boot Camp programs do provide a point in the juvenile justice continuum of care at which substance abuse problems could be addressed. However, the lack of conclusive data about the effectiveness of this model and inconsistency in treatment provisions across programs indicates that conclusions about this model's usefulness in meeting the needs of substance-abusing delinquents are premature.

4. State Training Schools

The most extreme form of juvenile justice sentencing supervision usually involves some form of state training facility that has many of the characteristics of a jail or prison. Facilities may or may not provide some type of alcohol and drug treatment intervention. While often the stated goal of the facility is rehabilitative, the use of a training school generally reflects the seriousness of the offense committed by the juvenile and the end point of repeated criminal offenses. Such offenses are generally associated with violence and an extensive history of cocaine/crack and/or heroin use. State training schools are generally considered to be a last resort to protect the community from a juvenile who has not responded to any previous levels of treatment or supervision interventions. Despite recent emphasis on utilizing some type of community corrections for juveniles vs. large state training institutions, a study lead by Parent[72] found a 26% increase in the number of juveniles confined to training schools between 1979 and 1991.

✓ While critics often recognize that community protection requires incarceration of dangerous juveniles, evaluation studies have generally been very skeptical of the positive impact of juvenile institutions. Findings frequently note 1) the exploitation of weaker juveniles by stronger ones, 2) the development of maladaptive survival strategies that make success in the outside world even less likely than the original maladaptive strategies that brought the juvenile in contact with the justice system in the first place, and 3) further entrenchment in criminal and drug-using subcultures.[73] Researchers have argued that incarceration does not reduce recidivism and is less effective than non-incarcerated community based intervention.[74] These researchers further argue that community-based interventions can be constructed to protect the community and effectively address juvenile drug use and other problems. In addition, non-incarcerated supervision interventions are more cost effective than incarceration. The use of a training school is the most expensive intervention in the graduated sanctions continuum, estimated at an average cost of $27,000 per year per juvenile in the late 1980s.[75]

- Supervision Monitoring: Biologic Testing

As mentioned in the section on Intensive Probation Supervision, monitoring often involves biologic testing. Such testing can involve urine, hair and blood analyses. However, urine analysis is the most widely used and accepted method for several reasons. It is minimally invasive, carries no religious or cultural taboos on collection, and cannot be shaved off. Urine monitoring can and often is used in treatment settings to support the monitoring process; however, it is most commonly used in a supervision context. While urine monitoring will not be reviewed again in the treatment sections, readers should keep in mind its potential for use in that area as well.

1. Urine Monitoring

The collection and analysis of urine for the presence of illegal drugs is commonly done for three purposes: 1) As has been discussed, urine monitoring is one of the basic methods of examining the extent of drug use within the juvenile justice population;[76] 2) Such monitoring is often used as a part of assessment. The use of urinalysis in assessment helps overcome denial and is believed to make adolescents more likely to openly discuss their drug use problems,[77] and 3) Urine monitoring is used as a part of monitoring treatment progress and outcome in the context of graduated sanctions. Urines are monitored to examine the overall effectiveness of

treatment and progress within a treatment level.[78] If a client's urine is found to contain illegal drugs, that information may be used to increase the intensity of therapeutic intervention and Juvenile Justice System supervision.

✓ The use of urine monitoring in Juvenile Justice System supervision generally rests on the assumption that drug use is a maladaptive behavior that can be changed with monitoring and increased consequences for continuing the behavior. There are those in the Juvenile Justice System who argue that urine monitoring alone (with appropriate consequent sanctions involving incarceration and/or placement in a drug treatment therapeutic community) may be a cost effective means of reducing drug use and consequent criminal behavior.[v] As part of a comprehensive graduated sanctions program, urine monitoring is often seen as an essential component providing the best data on drug use.[79] It would appear that urine monitoring is most applicable as a part of an overall comprehensive assessment, graduated sanctions and treatment outcome evaluation.

Range of Treatment Options

Treatment options within the graduated sanctions continuum involve three primary components: 1) treatment correlates, 2) treatment programs, and 3) treatment modalities. Like other components within the graduated sanctions continuum, all treatment option components operate simultaneously and should be continually evaluated. This section will examine the three components of treatment options, and then summarize a meta-analysis to provide overall evaluation.

- Treatment Correlates

In designing any type of drug treatment intervention program, it is crucial to be aware of the correlates of drug use initiation and how those and other factors affect treatment outcome and relapse. While it is not within the scope of this paper to thoroughly examine these correlates, research consistently indicates drug use and treatment outcome correlates should be considered in comprehensive assessment and intervention strategies. In their 1990/91 comprehensive review of adolescent drug treatment literature, Catalano and associates identified a range of pre-treatment, during-treatment, and post-treatment factors associated with relapse or failure to complete treatment. These factors should be considered in designing and implementing effective drug treatment programs.[w] Little can be done to change initiation or pre-treatment factors. However, the potential effect on substance use choices can be reduced through early identification and appropriate intervention strategies. Especially critical are those factors that place youth at risk for treatment failure or subsequent relapse.

1. Initiation of Drug Use or Pre-treatment Factors:

**Biological Factors:* The literature suggests that a number of biological factors may be related to drug use. Such factors are thought to be evidenced by a family history of alcohol and drug abuse[80] that may reflect genetic contributions and/or variance in brain receptor sites for a variety of chemicals.[81]

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[v] For an overview of a urine monitoring program, see Torres, 1996.

[w] As summarized by Dembo et al., 1993, p. 117.

* *Personality:* Personality characteristics such as low self-esteem,[82] sensation seeking and aggressive behavior have been shown to be related to the initiation of drug use.[83] In addition, Henggeler[84] has found that lower intellectual achievement is related to drug use.
* *Ethnicity:* In the general population, African-Americans are less likely to initiate drug use than White Non-Hispanicss or Hispanics.[85] However, in arrested populations, African-Americans are more likely to have used illegal drugs.[86]
* *Gender:* While males are more likely to initiate illegal drug use, use more frequently and engage in more violent and other forms of criminal behavior,[87] females are more likely to initiate because of sexual abuse and family violence and support their drug use through prostitution.[88]
* *Family:* A wide variety of family characteristics have been found to be related to drug use initiation. These have included drug-use role modeling,[89] conflict and violence,[90] and lack of attachments.[91]
* *Peers:* The role of peers on the initiation and continuation of drug use has been well documented. Peers usually introduce individuals to all types of drug use and provide continued access as well as the social context and justification for use.[92]
* *School:* A wide variety of problem behaviors including drug use and delinquency have been found to be related to school performance. Poor school attendance and low grades are consistently related to higher rates of drug use and delinquency.[93]
**Co-Morbidity:* Researchers have often concluded that it is not so much as one or perhaps even a few factors that result in the initiation and continuation of drug use, but rather a combination of biological and personality as well as environmental factors as family, peers and school problems. Research consistently shows that adolescent drug users and delinquents are characterized by extensive co-morbidity.[94]

2. Treatment Retention and Completion:
* *Ethnicity*: While ethnicity has not been found to be related to completing treatment, African-Americans are more likely to use drugs during treatment than are White Non-Hispanics or Hispanics.[95]
* *Drug Use Type and Age of On-Set:* The younger the age of onset, the more serious the primary drug of abuse and the abuse of multiple drugs. These factors are related to not completing treatment as well as poorer treatment outcomes.[96]
* *Educational Level*: School attendance, performance and high school graduation are all positively related to completion of treatment and positive post-treatment outcome.[97]
* *Voluntary vs. Mandated Treatment Entry:* Treatment mandated by the courts is related to treatment retention.[98]
* *Staff Characteristics*: Quality staff, who establish positive role relationships with clients, can improve treatment outcome.[99]
* *Involvement of Family/Parents in Treatment:* Treatment involvement by family members is positively related to program completion.[100]

3. Post-Treatment Factors Influencing Relapse:
* *Criminality:* The amount of lifetime criminal involvement is related negatively to post-treatment outcome.[101]
* *Ethnicity*: African-Americans are more likely to have slightly higher relapse rates than are Non-Hispanics or Hispanics.[102]

* *Length of Time in Treatment*: Treatment duration is related positively to long term positive treatment effect.[103]
* *Comprehensive Services:* Programs that provide comprehensive assessment and needed services along a continuum of care, including aftercare within a case management framework, have significantly lower recidivism rates.[104]
* *Thoughts and Feelings About Drugs and Drug Cravings:* Drug-focused thoughts and cravings are related to relapse.[105]
* *Involvement in Productive Activities:* Activities such as school or work are related positively to post-treatment outcome.[106]
* *Few and Less Satisfactory Active Leisure Activities:* Low levels of activity and satisfaction are related to relapse.[107]
* *Physical abuse and sexual victimization*: Dembo and associates[108] found that, at initial entrance into the Juvenile Justice System, 60 percent of youth reported being physically harmed by an adult in one or more of six different ways. In addition, 61 percent of females and 25 percent of males interviewed indicated that they had been sexually victimized at least once in their lifetimes. These reported rates should be considered conservative estimates and may indirectly affect relapse rates.

Consideration of the various correlates of drug use initiation and use are essential in developing successful treatment programs and choosing appropriate treatment modalities. While no system will be able to address each correlate noted, a balance between the optimum and possible should be sought.

- Treatment Programs

If a judge is favorable toward treatment, a juvenile offender may receive a mandatory treatment referral to an adolescent drug treatment facility. A range of *more traditional* non-detention options exist within communities, although not nearly as many as are needed to meet the demand for such services. Options include (from lesser to greater restrictiveness): support groups such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), outpatient, day treatment, inpatient, and residential therapeutic communities (TC's). No single treatment for adolescent alcohol and other drug abusers has clearly emerged as superior to any other form of treatment. However, some tentative treatment options are begining to emerge (see What Works section below). The following discussion focuses primarily on the reported effectiveness of these types of programs (a listing of various program models can be found in Appendix C).

1. Support Group, Outpatient, Day Treatment, and Inpatient Programs

✓ Henggeler[109] maintains that researchers know the least about the effectiveness of support groups, outpatient, day treatment, and inpatient programs. Such programs are called "traditional treatments" and are the most widely used programs for adolescent substance abuse. Controlled trials have not been conducted for specialized inpatient treatments and 12-step programs, making judgements about their effectiveness inappropriate. The Chemical Abuse/Addiction Treatment Outcome Registry (CATOR) data base is currently the most extensive longitudinal data base on adolescent treatment outcomes.[110x] Results, collected from 493 youth at 6- and 12-month follow-up interviews, indicate that adolescents who remained in self-help groups following treatment

[x]See also Jenson et al., 1995.

fared better than those who attended infrequently or not at all. Alford et al.[111] determined that youth who regularly attended AA and NA groups following inpatient treatment had significantly higher abstinence rates than adolescents who completed inpatient treatment only.[y] While such findings underscore the importance of post-treatment supports, these non-randomized outcomes may simply reflect higher motivation levels to remain drug free on the part of support-group attendees.

Similarly, in comparing inpatient versus outpatient treatments, the 1991 U.S. Congress Office of Technology Assessment review found no clear evidence that either setting was more effective in reducing adolescent substance abuse. This review additionally found that treatment modalities most clearly associated with positive outcomes for youth in treatment (e.g. recreational, educational, social skills training, and family therapy components) were viewed by treatment staff as secondary supports to actual substance abuse treatment. A number of treatment modalities will be reviewed in a separate section below.

2. Therapeutic Communities (TCs) for Adolescents

TCs are 24-hour settings in which multi-dimensional rehabilitation services including personality restructuring, social education and economic and survival skills are provided. Adolescents who enter drug-free TCs generally have very severe substance abuse problems which have caused serious disfunction in their daily lives. While the traditional therapeutic community focuses on the adult (usually male) addict, the need to accommodate the developmental differences and use patterns of adolescents has led to the following treatment modifications: 1) shorter recommended lengths of stay; 2) participation by families in the therapeutic process; 3) limited use of peer pressure with a focus on positive influences (pre-treatment peer influences have been generally negative); 4) less reliance on life experiences to develop understanding of one's self and behaviors, and 5) participation in the daily authority structure of the TC's operations with peers (staff maintain control over all decisions and supervision).[112]

Jainchill and her colleagues[113] have reviewed several major studies of TC effectiveness, including the Drug Abuse Reporting Program (DARP) study,[114] the Treatment Outcome Prospective Study (TOPS)[115] and the Center for Therapeutic Community Research (CTCR) study.[116] In the past, a substantial proportion of the total referrals to TCs came from self, family and/or friends, medical and drug treatment-based referrals. In what appears to be an increasing trend, 70 to 100 percent of admissions into programs reviewed by Jainchill and colleagues were legal referrals for all but two of the programs. The large majority of clients were males who entered treatment because of marijuana and/or alcohol abuse problems, with the exception of Hispanic youth who reported significant abuse of heroin.

✓ In her meta-analysis of residential programs for delinquent youth, Garrett[117] reported on the effectiveness of various treatment approaches within residential facilities. She reported that "a cognitive-behavioral approach, a relatively recent development, seems to be more successful than any other, even in the more rigorous studies."[z] In addition, the amount of time spent in a treatment program (TIP) is the largest and most consistent predictor of treatment outcomes within TCs.[118] Positive outcomes (e.g., no criminal activity, no drug use, employment, and

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[y] See also Jenson et al., 1995 .

[z] ibid p. 304 .

improvement in psychological measures) are all associated with longer TIP.[119aa] Further support for this claim was found in the TOPS study, which concluded that at 12-month follow-up, "residential treatment produced more substantial and consistent reductions in drug and alcohol use, drug-related problems, and predatory illegal acts than outpatient treatment."[bb] However, this finding was confounded by the DARP study, which found that outpatient drug-free clients showed slightly better outcomes for reductions in alcohol and marijuana use. High rates of dropout are the norm for TCs, with 30-day drop-out rates in the CTCR study ranging from 35 percent to 2 percent (reasons for this wide dropout range were not discussed).

✓* *Long-Term TCs*: Variables which correlated negatively with retention through 90 days included an antisocial lifestyle, high criminal involvement, significant problems fighting or controlling violent behavior, poor psychological status, and relationship with friends who were strongly involved with drugs and crime. Variables predicting retention included high levels of self-esteem, high CMRS Index scores (a scale which measures circumstances, motivation, readiness, and suitability for treatment), high Environmental Risk Index scores (a scale measuring various environmental factors which occur in treatment settings), and interviewer impressions of client likelihood of staying in the program.[120] While positive outcomes for those who remain in treatment appear promising, a great deal more research is needed to understand the complex and interactive relationships between client, treatment and outcome.

✓* *Short-Term TCs*: Short-term residential facilities have more problematic outcomes than their long-term alternatives. The trend in the Juvenile Justice System is to place troubled adolescents in these large and frequently crowded residential facilities. "These facilities are often intimidating and otherwise stressful environments, where youth educational and other rehabilitative needs are often ignored or insufficiently addressed. Evidence has been accumulating that these expensive programs serve primarily to isolate youth from the general society, are ineffective, and have no significant impact on recidivism."[cc]

✓3. Overall Treatment Program Evaluation Issues

Many studies on adolescent drug treatment effectiveness have relied on quasi-experimental or one-group pre-post designs. However, researchers[121] note that reported changes in treatment condition can result from a number of factors unrelated to treatment effectiveness. Such factors include: 1) Statistical regression effects which are likely because youth who enter treatment in crisis often reduce their drug use when problems have diminished; 2) Differential dropout rates which may skew results so that those with the most serious problems drop out of treatment, leaving the less severe users to show a false overall improvement in treatment outcomes; 3) Effects of history and maturation which are especially important for adolescents.

[aa]See also Onken, Blaine, & Boren (1997) for recent studies on general drug treatment retention.

[bb]Catalano et al., 1990-91, p. 1107.

[cc]Dembo, Williams, & Schmeidler, 1993:119.

Brown and her colleagues[122dd] reported that there are wide normal variations of drug use for adolescents over time,[123ee] and 4) Drug use patterns, which for adolescents in no treatment or minimal treatment control conditions have shown substantial decreases in drug use over time.[124ff] In addition to the above factors, the delinquency treatment literature has a long history of demonstrating successful outcomes in uncontrolled studies, but these effects diminish when submitted to controlled clinical trials.[125]

- Treatment Modalities

This paper seeks to support continual efforts towards coordination of services across the continuum of the service delivery system. Although utilizing a separate section for "treatment modalities," the modalities and concepts examined here are found at various places along the treatment continuum. For example, one might find family therapy interventions used in prevention settings, diversion programs, inpatient and outpatient settings, and even, in a limited way, among residential facilities. In addition, these modalities are often used to reduce other problem behaviors as well as reductions in substance use behaviors. In this sense, they should be considered integral to the various phases of any multi-problem system, including substance abuse treatment within the Juvenile Justice System. This paper will briefly examine family therapy, skills training, conflict resolution and violence prevention, peer mediation, adult mentoring programs and after-school recreation programs. In the discussion of the various modalities, primary emphasis is given to reported effectiveness.

✓ Randomized trials have provided minimal support for the effectiveness of any treatment modalities of adolescent drug abuse.[126] Several carefully designed experimental studies have compared treatment modalities: inpatient vs. outpatient;[127] family therapy vs. parent training,[128] and conjoint vs. one-person family therapy.[129gg] For all studies, findings generally supported decreased adolescent drug use equally across both conditions, leading the authors to conclude that both treatments were effective. However, Henggeler maintains that "such conclusions may be in error because these studies and their results present the same difficulties in interpretation and significant threats to internal validity as noted for single group designs. That is, history, maturation, and regression may have accounted for the similar decreases in drug use across treatment conditions."[hh]

1. Family Therapy

Family therapy has been utilized extensively as a treatment modality in the mental health and drug abuse fields. Researchers have been led to design and test family interventions specifically for drug-abusing adolescents [130] for two reasons: 1) success of family-based interventions in other related problem areas such as delinquency and child behavior problems,[131] and 2) identification of consistent family-related factors associated with development of

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[dd] See also Henggeler, 1997

[ee] See also Henggeler, 1990.

[ff] See also Henggeler, 1997.

[gg] See also Henggeler, 1997.

[hh] 1997, p. 264.

adolescent drug use.[132] Family therapy models include conjoint family therapy and one-person family therapy,[133] group treatment of families vs. individuals utilizing strengths of social networking, self-help and mutual support that are often part of minority group culture,[134] and integrative models. Integrative models are the most promising family-based interventions.[135] These interventions, which recently emerged concurrently with developments in psychotherapy, emphasize construction of systematic and prescriptive packages which have been termed "multi systemic"[136] and "multidimensional."[137] Examples include Purdue Brief Family Therapy,[138] Multidimensional Family Therapy,[139] and Multi Systemic Therapy (MST).[140]

The most systematically evaluated integrative model, Multi Systemic Therapy (MST), is a comprehensive family- and community-based treatment approach embedded within the Family Preservation Model of service delivery. MST attempts to address the multiple determinants of youth and family problems by targeting those individual, family, peer, school, and community factors associated with serious antisocial behavior. MST meets with juveniles and their families in the home, school, neighborhood and community, which are the areas where drug use and delinquency behaviors are most likely to occur. Interventions are intensive, highly individualized, comprehensive, and include a team approach to the service delivery. "The therapist's task is to identify the 'fit' of identified problems with the strengths and needs of the multiple systems within which the youth is embedded and to collaborate with family members in using these strengths to create and maintain changes in the individual's behavior and social ecology of the youth (e.g., family interactions, access to negative peers, school-family interactions, etc.)."[ii]

✓ Research groups have recently published results of randomized clinical trials assessing the effectiveness of family-based treatments with other treatment modalities, as evidenced by significantly lower drug use at termination. A few of the trials demonstrated the superiority of family therapy over other treatments in the areas of individual counseling,[141] parent education and skill-building groups,[142] and peer group therapy.[143] Studies demonstrated that family-based models can engage and retain cases in drug treatment, which is especially important given the traditionally high dropout rates in the field of substance abuse. Home-based Multi Systemic Therapy has demonstrated a particularly strong ability to reduce, and in some cases almost completely eliminate, program dropouts.[144]

MST has recently shown promise in reducing a number of drug-related delinquency behaviors, including fewer arrests, fewer criminal offenses, and 10 fewer weeks in juvenile detention during a 59-week follow-up.[145] Two studies focusing on drug-using juvenile offenders demonstrated significantly lower incarcerations, out-of-home placements, and soft- and hard-drug use at post-treatment. In addition, reductions in soft-drug use were maintained at 6-month post-treatment follow-up for males.[146]

MST has proven to be more effective than usual community treatment for inner-city juvenile offenders, specifically in improving family warmth and cohesion and decreasing youth behavioral difficulties such as aggression with peers. "The relative efficacy of MST was neither moderated by demographic characteristics--ethnicity, age, social class, gender, arrest, and

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[ii] Schoenwald et al., 1996, p. 435.

incarceration history--nor mediated by psychosocial variables including family relations, peer relations, social competence, behavior problems, and parental symptomatology. Thus, MST was equally effective with youth and families of divergent backgrounds."[jj]

Cost comparisons made between MST and the usual services (outpatient substance abuse referral), which a delinquent youth receives over a one year period, showed that "the incremental costs of MST were nearly offset by the savings incurred as a result of reductions in days of out-of-home placement during the year."[kk]

2. Skills Training

Skills training (also referred to as interpersonal skills, life-skills or social skills training) has been recommended for a number of problems, including adolescent substance abuse. While the definition of a skill varies across studies and program reports, a skill can be defined as "the exact words to say, the way to say them, and the hand movements needed to convey a message."[ll] These programs are often integrated into school-based prevention programs, using cognitive-behavioral strategies. One common difficulty with skills training is that the existence of many models make agreement on a common intervention and set of skills difficult. Skills training often includes such components as assertiveness training, communication skills, anger management, peer-resistence training, problem-solving, and relapse prevention skills.[147] Specific treatment techniques which are often used to teach skills include providing information, demonstrating desired behaviors by appropriate modeling, role playing desired behaviors by teens, giving structured and supportive feedback, and assigning homework to practice skills in the teen's natural environment.

✓ While skills training is found in many clinical program and prevention model descriptions, few have provided evaluation studies. Hall[mm] identified only seven studies where skills training was either the sole treatment approach or a major component of treatment. Hawkins and colleagues[148] provided the only study which utilized skills training as the primary treatment with incarcerated adolescents to increase resistance to drug use. The investigators found strong evidence that the youth in the experimental group improved their skills in drug use avoidance, social interaction, self-control, and problem-solving from pre-treatment to post-treatment when compared to the control group teens. However, few studies demonstrate long-term effects of acquired skills on reductions in alcohol and drug use,[149] and attrition rates are quite high with high-risk youth.[150] While such interventions show promise, more controlled studies using well-defined intervention techniques are needed in this area.

3. Conflict Resolution and Violence Prevention

Conflict resolution and violence prevention programs use curricula developed to improve student social, problem-solving and anger management skills, promote beliefs favorable to nonviolence and increase knowledge about conflict and violence. The curricula address risk

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[jj]Henggeler, 1997, p. 4.

[kk]Schoenwald, 1996, p. 431.

[ll]Hall, 1995, p. 255.

[mm]1995. Refer to this study for a more comprehensive review on skills training.

factors such as early and persistent aggressive behavior and association with delinquent and violent peers, factors which are also correlates of drug use. Content and instructional methods vary considerably between programs.

✓ While many such curricula have been developed in recent years, few have been subjected to controlled evaluations. Those that have undergone more careful evaluations show mixed results.[nn] While such curricula have been generally effective in improving student social skills in hypothetical conflict situations, only one[151] of the four controlled studies which measured attitudes about violence was able to reduce student attitudes about violence. Two studies showed reductions in self-reported violent behavior.[152] Several of the curricula were designed and tested with minority, low-income adolescents.[153] While a variety of methodological problems and lack of random assignment make interpretations of these findings problematic, such programs appear to merit more careful study/controlled implementation with high-risk juvenile populations.

4. Peer Mediation

Peer mediation programs are often offered in conjunction with conflict resolution curricula. Students in conflict agree to involve a peer mediator to help resolve the dispute. The mediator examines various aspects of the problem, recommends changes and compromises, and develops a mutually agreed upon solution. Peer mediation may address such risk factors as early and persistent anti-social behaviors and association with peers who are involved in violence and delinquent behaviors such as substance abuse.

✓ Lam[154] reviewed 14 evaluations of peer mediation programs in North America. While qualitative and anecdotal reports were positive, none of the controlled studies showed significant impact on observable student behaviors (e.g., disciplinary referrals, fighting). One other noteworthy study conducted by Tolson, McDonald, and Moriarty[155] found that peer mediation participants were significantly less likely to be referred again within two and one-half months to the assistant dean for interpersonal conflicts than were individuals receiving traditional discipline. More controlled studies are needed in this area.[oo]

5. Adult Mentoring Programs

Adult mentoring programs typically involve non-professional volunteers who spend time with individual adolescents, acting as non-judgmental, supportive role models. These programs are designed to address such risk factors as alienation, academic failure, low commitment to school, and association with delinquent or violent peers. Mentoring programs are also designed to provide protective factors such as opportunities for pro-social involvement, bonding with pro-social adults, and healthy beliefs and clear standards for behavior.[156]

✓ In their review of 10 available evaluations, Brewer and his colleagues determined that "noncontingent, supportive mentoring relationships do not have desired effects on outcomes such as academic achievement, school attendance, dropout, various aspects of child behavior (e.g. misconduct), or employment."[pp] However, one small short-term study found that when mentors used behavior management techniques such as contingency contracting, student school

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[nn]See Brewer et al. (1995) for a comprehensive review of these programs and their effectiveness.

[oo]See Brewer et al. (1995) for a comprehensive review of these programs and their effectiveness.

[pp]Brewer et al., 1995, p.99.

attendance improved. This is consistent with findings from studies of school behavior management interventions.[157] More evaluations with randomized designs are needed in this area before firm conclusions can be reached.

6. After-School Recreation Programs

After-school recreation programs are designed to address risk factors such as alienation and association with delinquent and violent peers, as well as providing protective factors such as opportunities for involvement and bonding with pro-social youth and adults, and skills for leisure activities.

✓ While few evaluation studies have been conducted in this area, Jones and Offord[158] found statistically significant reductions in anti-social behaviors during the program, perhaps indicating that participants who were involved in structured activities had less free time on their hands to become involved in delinquent behaviors. No changes were reported in home or school behaviors, and positive program effects declined significantly after the intervention concluded. Given the lack of evaluations of these types of programs, more research designs using random assignment are needed.[qq]

- Meta-Analysis of Treatment Effectiveness

Lipsey and Wilson[159] recently conducted a meta-analysis of experimental or quazi-experimental studies of intervention programs for serious and violent juvenile offenders. This analysis reviewed 200 programs, divided into studies of intervention with noninstitutionalized juveniles (N=117) and studies of intervention with institutionalized juveniles (N=83). The great majority of the juveniles in these studies were reported to be adjudicated delinquents, and most or all had a record of prior offenses usually involving person or property crimes. While this comprehensive analysis did not specifically look at drug and alcohol use reductions, it provides very useful insight into which intervention programs showed the greatest impact on outcomes closely related to substance use such as reductions in police contacts/arrest recidivism rates, officially recorded contacts with juvenile courts, offense-based probation violations, or other similar categories.

Evidence from the analysis clearly showed that intervention programs are generally capable of reducing the re-offending rates of serious juveniles. The more important question for this paper, however, is which types of programs were the most effective and which proved to be ineffective.

✓1. Intervention with Noninstitutionalized Juveniles

Treatment effectiveness was calculated using a "mean effect size" for each treatment. Treatments were then grouped into similar effect sizes. The top group consisted of those treatment types which showed consistently positive, statistically significant treatment effects. This group included interpersonal skills training, individual counseling (including Multi Systemic Treatment and reality therapy), and behavioral programs (e.g., family counseling and contingency contracting). Overall, these treatments were found to reduce recidivism rates by about 40 percent, a considerable reduction considering expense and social damage caused by juvenile delinquents.

[qq]Refer to Brewer et al. (1995) for a comprehensive review of these programs and their effectiveness.

Close behind this top group was a second tier of treatment types for which evidence was also statistically significant and quite convincing. These programs included multiple services such as intensive case management and multimodal service as well as restitution programs for juveniles on probation or parole.

The bottom group of treatments "show the strongest and most consistent evidence that they were *not effective* in reducing the recidivism of noninstitutionalized serious juvenile offenders."[rr] This group included wilderness/challenge programs, early release from probation or parole, deterrence programs (mostly shock incarceration) and vocational training or career counseling/job search programs. While strong arguments can be made that job skills and access to jobs are crucial, existing studies do not indicate much success. Perhaps, at the program level, job training is not of sufficient intensity or does not take place within sufficient collaboration to be effective. In addition, job opportunities at a macro level must be available for any vocational training to be effective.

The largest proportion of effect size variance was associated with the *characteristics* of the juveniles who received treatment, especially prior offense histories. The influence of treatment type and amount showed intermediate effect sizes, with general program characteristics only weakly related to effect size. Interestingly, the largest intervention effect sizes were seen with the *more* serious offenders rather than with less serious offenders, offering good reason to believe that such interventions would be at least equally effective if used exclusively with more serious offenders.

✓2. Intervention with Institutionalized Juveniles

Again, mean effect size for each treatment type was calculated and findings were grouped into similar effect sizes. However, there were too few total studies in each group to make any firm conclusions about the relative effectiveness of different treatment types. Treatment types in the top two groups with the strongest treatment effects included interpersonal skills training (such as social skills, aggression replacement and cognitive restructuring), teaching family homes (including small behavior modification group homes with "teaching parents" and token economies), behavioral programs (such as cognitive mediation training and stress inoculation training), community residential programs or TCs (reviewed above), and multiple services within residential settings. The most effective of these treatments reduced recidivism rates by 15-20 percent, a considerable decrease given the relatively serious offenses charged to involved juveniles.

The largest proportion of effect size variance was associated with the general characteristics of the intervention *program,* especially the age of the program and whether services were administered by juvenile justice or mental health personnel (programs run by mental health professionals were significantly more effective than those provided by juvenile justice personnel). Type and amount of treatment showed only moderate effects, and juvenile characteristics showed little effect. This is the reverse of the pattern showed by non-institutionalized offenders.

[rr]Lipsey & Wilson, 1997, p. 10 (authors' italics).

What Works

Based on the findings from the meta-analysis by Lipsey & Wilson[160] and the review of the range of drug treatment and supervision options available to judges, the following summary represents three levels of knowledge about what is known regarding the effectiveness of drug supervision and treatment programs/modalities. The first level shows programs or modalities with the strongest empirical evidence of effectiveness. The second level highlights existing programs which need further research before conclusions can be made about their effectiveness (particularly related to program costs). The final level shows programs which appear to show little or no evidence of success based on current empirical studies. Both non-incarceration and institutionalization program summaries are provided.

Non-Institutionalized Programs

- Program Options Which Show Good Evidence of Effectiveness
  - Behavioral therapies (family, contingency contracting)
  - Intensive case management including system collaboration and aftercare
  - Multi Systemic Therapy
  - Restitution programs (parole- and probation-based)
  - Skills training

- Program Options Which Require More Research to Document Effectiveness
  - Alcoholics Anonymous/Narcotics Anonymous/Cocaine Anonymous
  - Adult mentoring (with behaviorally contingent reinforcement)
  - After-school recreation programs
  - Conflict resolution/violence prevention
  - Intensive probation supervision
  - Juvenile TASCs
  - Peer mediation
  - Traditional inpatient/outpatient programs (DARP and TOPS studies show such programs are more effective than no treatment)

- Program Options Which Do Not Show Evidence of Effectiveness
  - Deterrence programs
  - Vocational training or career counseling/job search
  - Wilderness challenge programs

Institutionalized Programs

- Program Options Which Show Good Evidence of Effectiveness
  - Behavioral programs (cognitive mediation, stress inoculation training)
  - Longer-term community residential programs (therapeutic communities with cognitive-behavioral approaches)
  - Multiple services within residential communities (case management approach)
  - Skills training (social skills, aggression replacement, cognitive restructuring)
  - Teaching family homes

- Program Options Which Require More Research to Document Effectiveness
  - Day Treatment Centers (too few programs to review)

- Program Options Which Do Not Show Evidence of Effectiveness
  - Boot camps
  - Short-term residential facilities
  - State training schools

Continuing Services: Beyond and Within the Juvenile Justice System

As mentioned previously, dropout rates from voluntary substance abuse services are quite high. Regardless of the progress which clients make in residential drug treatment facilities, research suggests that it is difficult to maintain these gains following discharge.[161ss] Brown, et al.[162] found that 60 percent of adolescent substance abusers had relapsed within the first three months of discharge. Relapse rates climbed to 80 percent in the first 12 months following discharge. Similarly, Spear and Skala[163] found that 91.9 percent of adolescents had relapsed at least once during the first year after discharge from a residential facility, with 75.7 percent using primarily alcohol or marijuana at least monthly by the end of the first year. Adolescents were found to be most vulnerable to relapse during the first two months following treatment. Perhaps this is not surprising given that adolescents often return to the familiar peer, family, and school stressors which supported and promoted their initial drug use.

Aftercare services are a vital link in the service continuum, but such services are infrequent, underdeveloped, and tend to focus on only single problem areas such as peer networks or school placements.[164tt] While many programs are well-intentioned, those services which are provided are often fragmented. In an OJJDP-commissioned study on community-based aftercare services, Altschuler and Armstrong[165] found that a relatively small proportion of the programs focused on juveniles, and that which was reported was often anecdotal, impressionistic, and descriptive. In addition, the design and operations of most programs were not clearly spelled out, explained, or implemented.

✓ According to Catalano (1989), a strong aftercare program must include elements which deal rapidly with relapse to substance abuse, respond to those relapses in ways that discourage continued use, and support a return to abstinence. As mentioned in the Treatment Correlates section above, strong predictors of relapse included the presence of drug cravings and the inability of treatment clients to establish non-drug using social contacts in work and school settings. Specific interventions which appear to have the greatest promise of addressing these factors would include cognitive-behavioral skill training which "seeks to alter skills by actively developing new ways of interpreting and responding to inter- and intrapersonal situations. . . .Because skill training seeks to alter individuals' methods of coping, and to instill self-control, it should be effective in helping adolescents maintain treatment gains and negotiate their post-treatment environment."[uu] While well-controlled studies are needed to evaluate the long-term effectiveness of cognitive-behavioral skill training programs, evidence is accumulating which supports such interventions in other related areas.[vv]

[ss]See also Godley et al., 1994.

[tt]See also Dembo et al., 1993.

[uu]Catalano et al., 1990-91, p. 1130.

[vv]See Catalano et al., 1990-91 for a review of these studies.

Summary and Recommendations

Based on a review of the juvenile drug-crime cycle with all of its correlates as well as a review of the various interventions used to break this cycle, it is essential to develop successful interventions as a comprehensive system, not merely a series of components. The evaluation data strongly suggest that an integrated, collaborative system that includes comprehensive assessment, referrals to appropriate services, case management along a continuum of care and system collaboration has the greatest probability of yielding successful outcomes. As a result of extensive literature review, input from juvenile justice and adolescent substance abuse experts, and analysis of available data, the following guidelines are recommended:

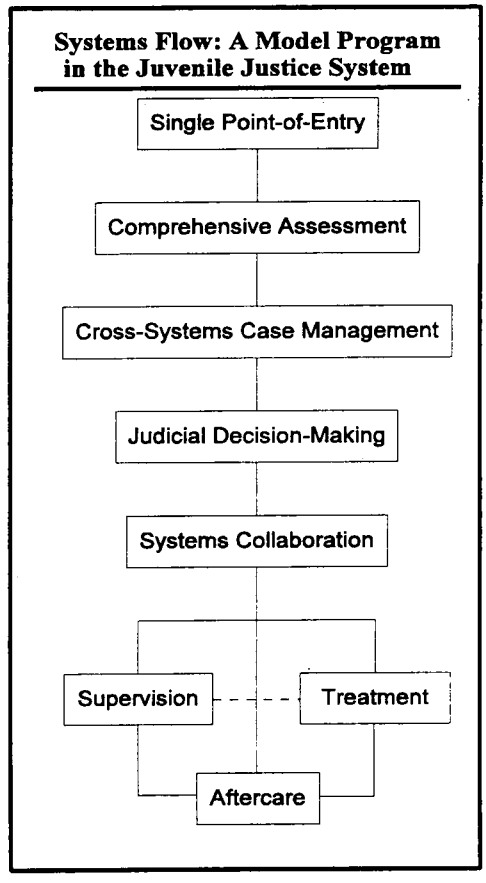
Guiding Principles

1. Interventions should recognize the balance between accountability to the victim and the community, the need to protect the public, and the goal of rehabilitating and reintegrating juveniles by providing them with the personal competencies needed to successfully navigate their communities of origin.
2. Intervention must take place early when it has the best chance of reversing or ameliorating problem behaviors.
3. Adolescents entering the system must undergo a comprehensive needs assessment in order to tailor the intervention to each juvenile's unique needs.
4. Once needs have been identified, adolescents must be provided with a continuum of care which offers the full range of relevant services needed for effective intervention.
5. Collaboration between and across systems relevant to juveniles (families, schools, the courts, communities) must be in place.
6. There must be an agent or agency accountable for establishing and maintaining collaboration between components of the care continuum.
7. Programs must undergo consistent, on-going, rigorously designed evaluation including cost-benefit analysis. Such evaluation should result in modifications to strengthen what works and change what does not.
8. Effective interventions must be related to the school, peer, and family systems where adolescents routinely socialize and receive reinforcement for their substance-using behaviors.
9. Program interventions and staff training must be sensitive to the unique and culturally specific needs of adolescents.
10. It is important to recognize that interventions occur within specific national and local community, educational and economic opportunity structures. A successful intervention should include attempts to ensure high quality educational and job opportunities for those at risk. Job opportunity issues here refer to a macro-level concern for environments that provide alternative options for youth.
11. Given the general lack of experimental evidence supporting more restrictive services, treatment dollars should be targeted toward programs which are less restrictive and are more likely to address juvenile problems in the context in which they occur and are reinforced: the family, the school, and peer groups of the adolescent.

Systems Flow - What a Model Program Might Look Like

The following material provides a brief description of the flow in a comprehensive system based on the review of findings presented in this report and interviews with experts in the field.

Single Point of Entry. From a cost-efficiency standpoint, adolescents would enter the system at a single-point-of-entry such as a Juvenile Assessment Center. The point-of-entry would provide assessment and screening, assign a case manager, and make recommendations for services based on assessment.



Immediate and Comprehensive Assessment. At any point of entry, immediate and comprehensive assessment should be provided. Identification of key needs and problem areas is required to avoid inappropriate referrals, duplication of services, and unnecessarily restrictive placements. Assessment should be consistent with protecting the community. Assessors should have training in the specific instruments used, be culturally sensitive and aware of the role of cultural differences.

Cross-Systems Case Management. Case management identifies needs, service gaps, and preliminary outcomes through the following functions: involvement with assessment, supporting compliance with recommendations, tracking treatment progress, forging linkages with service providers, and monitoring of random drug testing such as urinalysis. Consistent with principles of client confidentiality and Juvenile Justice System responsibility, a management information system (MIS) should be in place, in which all relevant information would be available to those involved in the provision of services. Case management should be coordinated by one agent or agency. Specific functions of case management could be contracted or re-assigned with the understanding that the coordinating agent will oversee how various aspects connect and work for the best interest of the juvenile.

Continuum of Care. Recognizing that many delinquent youth have multiple factors which affect their decision to use substances, a continuum of care which provides links to service providers in a variety of areas is crucial. Services provided within the continuum of care should: 1) be community-based whenever possible, 2) involve the family (nuclear and extended), 3) identify

and address risk factors, 4) identify and effectively utilize protective factors and resources, 5) be comprehensive and flexible, 6) empower families and communities, 7) aim at modifying personal characteristics, and 8) build positive peer networks.

Judicial Decision-Making. While judicial involvement and decisions may occur at other points, judges would typically become involved after assessment and perhaps after the initiation of case management. In the Juvenile Justice System, the judge may play an active role in leading or monitoring collaboration.

Systems Collaboration. As has been shown, breaking the drug-crime cycle is a complex process that draws upon a wide variety of community agencies and systems. Therefore, it is crucial that the Juvenile Justice System provide linkages between all of the community systems that can contribute to breaking the cycle. For example, in a family based intervention, linkages should occur with such other agencies and systems as schools, communities of faith, social service and public health agencies and employers (including job training and skill development).

Treatment. Treatment programming is complex due to the need to address factors involved in the initiation, continuation, and relapse into substance abuse. In order to increase the probability that treatment will be effective, factors such as those previously identified as correlating to substance use must be considered. Programs showing the strongest evidence of treatment effectiveness (as summarized in the What Works section above) should be given highest treatment priority. Ideally, a core of treatment services would be provided at a clearly specified point in the care continuum under the guidance of a case manager who would then connect the adolescent and his or her family to other needed services.

Utilization of Traditional Services. While many traditional drug services such as inpatient programs, outpatient services, and half-way houses fail to show long-term treatment successes, these services will continue to be needed within the continuum of care. However, these alternatives must begin to incorporate those approaches shown to have the greatest likelood of success in enhancing long-term outcomes if they are to remain viable parts of the juvenile justice process.

Aftercare. It is beneficial for both the Juvenile Justice System and the juvenile to maintain contact after formal systems processing has been completed. To maintain ongoing evaluation efforts, the Juvenile Justice System benefits from continued monitoring of and involvement with the client system. For the juvenile, aftercare maintains gains made in treatment and programming during the transition from treatment to community. Reintegration links the juvenile to community supports and re-enforces positive modeling. Aftercare should include a re-assessment of unmet or ongoing service needs. Aftercare could also address the larger issues of increasing linkages to educational, vocational, and economic opportunities for adolescents, advocating for change at the policy and macro-levels.

Implementation at the Local Level

In order to successfully implement the strategies outlined above at the local level, support from all relevant components of the Juvenile Justice System and the community is mandatory. Although mandated treatment can be successful for adolescents, gains made need to be sustained once the adolescent returns to his or her community. The following steps comprise a suggested strategy for implementing model programs at the local level.

First: Planners should conduct a community assessment in order to identify Juvenile Justice System willingness to participate and provide leadership (especially judicial willingness), identify potential resources, understand community expectations, determine level of community support for program goals and objectives, and identify existing collaborative structures.

Second: All major systems in which the adolescent interacts (schools, churches, families, etc.) need to be invited to participate with the courts in the development of strategies and services. This establishes points of contact, opens communication channels, promotes integrated approaches to problem solving, and increases community buy-in to the process.

Third: The Juvenile Justice System at the local level must be committed to making referrals a reality. In maintaining the delicate balance between accountability and rehabilitation, the Juvenile Justice System serves as the link between the needs of the juvenile and the needs of the larger community. Enforcement of treatment plans, engagement of the family unit, and support of collaborative action are all roles which can be filled by judges, probation officers, and other law enforcement officials.

Fourth: Those responsible for implementing any element of the overall plan should receive any necessary training prior to implementation. Supervisors should support professional development activity which enhances employee effectiveness in their assigned role.

Fifth: Mechanisms must be put in place to ensure that collaborative program efforts are sustainable. Transitions into new initiatives should be planned and gradual, allowing time for necessary training and problem-solving. Alternative strategies and processing options should be available as often as possible for staff charged with implementing new programs. At all levels (administration, management, and direct service staff), commitment to cross-systems collaborative principles is needed to sustain effort and create an environment in which collaboration can occur. Appropriate resource development activities should be directed to sustain and replenish resources. Ongoing feedback and support mechanisms should also be in place.

Finally: The implementation phase of any project potentially involves conflict, which can result in wasted resources and energy or even lead to program destruction. Within a collaborative system, successful mediation of conflict involves taking various perspectives of the problem situation into account and then attempting to reach consensus on how best to resolve them. Additional strategies to resolve conflict include avoiding or delaying action, deciding by majority rule, encouraging those

in conflict to develop alternative solutions on their own, or even directive processes by which those in positions of authority gain compliance with their views and wishes.[166]

Kindler and Leigh[167] suggest that no single approach to conflict resolution will be effective in every case. Rather, they note that effective mediators of conflict do the following: 1) Explore the issue to identify the source of conflict and those who should be involved in resolving it; 2) Determine the level of resource commitment (time, effort, etc.) to devote to resolution, and 3) Implement a conflict resolution strategy based on these considerations, learning from the process through follow-up after the conflict is resolved.

Conclusion

The nature of juvenile drug use, drug treatment and crime is complex. Future programmatic attempts to break the juvenile drug-crime cycle must be based on knowledge gained from past work and research. This paper has been an attempt to summarize such knowledge. The authors are hopeful that the information presented here will provide a useful contribution to the work of collaborative partners in the Juvenile Justice System, drug treatment programs and a wide variety of community agencies as they search for ways to intervene with the drug-crime cycle.

Endnotes

1 . Howell et al., 1995

2 . Dembo et al., 1987, 1997; Snyder & Sickmund, 1996

3 . Thornberry et al., 991

4 . Schonberg, 1993

5 . McBride & McCoy, 1993

6 . DeLeon & Deitch, 1987; Johnston et al., 1996

7 . Dembo et al., 1993

8 . Inciardi et al., 1993

9 . Dembo et al., 1996

10 . Johnson et al., 1993

11 . Johnson et al., 1993

12 . Schonberg, 1993

13 . Reno, 1996

14 . Reno, 1996

15 . Bilchik, 1995

16 . Dembo & Rivers, 1996

17 . Farrow et al., 1993; Winters & Stinchfield, 1995

18 . Winters & Stinchfield, 1995

19 . Winters & Stinchfield, 1995

20 . Rahdert, 1991

21 . Dembo, et al., 1996

22 . Winters, 1991, 1992

23 . Winters & Henly, 1989

24 . Skinner et al., 1983

25 . Winters, 1991, 1992

26 . A total problem severity index score is translated into either a green flag or red flag score. A red flag score indicates that further assessment is necessary, with high likelihood of a need for drug treatment services. A green flag score indicates that further assessment and referral are not necessary. Reliability and validity research (Winters, 1991, 1992) indicates that the PESQ has favorable internal consistency reliability (coefficient alpha, 0.91 to 0.95) in various gender and age groups with samples of drug abusing and high school populations, and high correlations with other adolescent drug assessment instruments (average validity coefficients of .73 and a composite drug use frequency scale (.78). Norms have been collected on juvenile offenders. The PESQ is estimated to accurately predict the need for a comprehensive drug assessment in 87 percent of screened cases, with estimates that red flag scorers are eventually referred for drug treatment in 89 percent of the cases (Winters 1993).

27 . Winters & Stinchfield, 1995

28 . Inter-rater reliability on diagnoses ranged from Kappa = .53 to .86. Test-retest reliability on diagnoses over a one-week period ranged from Kappa = .80 to .83. Evidence for criterion validity was found in clinician's ratings which were generally in agreement with the ADI scores, ranging from Kappa = .71 to .82 (Winters et al., 1993a).

29 . Rahdert, 1991

30 . Bokos et al., 1992

31 . Godley, 1994; Rapp, 1997

32 . Rapp et al., 1997

33 . Rapp, 1997

34. Siegal et al., 1996

35. Dennis et al., 1992; Godley, 1994; Schlenger et al., 1992

36. Conrad et al., 1993; Perl & Jacobs, 1992

37. Falck et al., 1994

38. Lidz et al., 1992; McCoy et al., 1992

39. Evans & Dollard, 1992

40. Kolden et al., 1997; Siegal et al., 1995

41. Westermeyer, 1989

42. Babor et al., 1991

43. Ballew & Mink, 1996

44. Spear & Skala, 1995

45. Godley et al., 1994

46. Siegal et al., 1995

47. Del Boca et al., 1995

48. Hall, 1997

49. North Central Regional Educational Library, 1996

50. Bailey & Koney, 1996; Gutierrez, et al, 1996; Chrislip, 1995; Rosenblum, et al, 1995; Weinstock, 1995.

51. Bailey & Koney, 1996

52. Dembo & Rivers, 1996

53. Dembo et al., 1993

54. Hawkins et al., 1992; Kumpfer 1989; Henggeler, 1997

55. Klitzner et al., 1991

56. Dembo, 1997, Personal Interview

57. Dembo et al., (1993) describe one promising preadjudication program: the Family Education Program, run by the Prevention and Intervention Center for Alcohol and Drug Abuse (PICADA) in Madison, Wisconsin. PICADA is a diversion program which provides a variety of intervention services, including screening, assessment, education and referrals to youth and their families. Goals include: 1) increase knowledge about AOD; 2) increase clients' ability to identify and communicate attitudes about AOD; 3) promote attitude change; 4) increase clients' abilities to more accurately assess their substance use/abuse, and 5) increase clients' willingness to accept referrals to others programs. Pre- and post-test measurements, in the absence of a control or comparison group, indicated changes in knowledge, attitudes and feelings regarding substance use when assessed shortly after program participation. Literature reporting formal evaluation of this program was not located.

58. Government Accounting Office, 1997

59. Roberts et al., 1997

60. Inciardi et al., 1996

61. Lipsey & Wilson, 1997

62. Lipsey & Wilson, 1997

63. Krisberg & Howell, 1997

64. Greenwood & Turner, 1993

65. Rivers & Trotti, 1995

66. Anglin et al., 1996

67. Armstrong, 1991; Palmer, 1991

68. Henggeler & Schoenwald, 1994

69. Peterson, 1994 - as cited in Henggeler & Schoenwald, 1994; MacKenzie et al., 1992; MacKenzie, 1991

70. Peterson, 1994 - as cited in Henggeler & Schoenwald, 1994.
71. Henggeler & Schoenwald, 1994
72. Parent, 1994
73. Krisberg et al., 1989; Bartollas, 1997.
74. Lipsey & Wilson, 1997; Krisberg & Howell, 1997.
75. Bartollas 1997
76. DUF, 1997.
77. Lashey, 1994.
78. Hubbard et al., 1989; Lashey, 1994.
79. Lipsey & Wilson, 1997.
80. Merikangas et al., 1992
81. Wyman, 1997
82. Henggeler, 1997
83. Brook et al., 1990
84. Henggeler, 1997
85. Johnston et al., 1996
86. Drug Use Forecasting, 1997
87. Martin et al., 1995
88. Nelson-Zlupko, 1995
89. Brook et al., 1990
90. Needle et al., 1990
91. Brook et al., 1993
92. Elliott et al., 1985; Towberman, 1993; Henggeler, 1997c
93. Hawkins et al., 1992; Kandall and Davies, 1992; Henggeler, 1997c
94. Inciardi, et al., 1997.
95. Moore, 1992; Catalano et al., 1990/91
96. Catalano et al., 1990/91; Hawkins et. al., 1992
97. Catalano et al., 1990/91; Hawkins et al., 1992
98. Leukefeld & Tims 1988; Inciardi & McBride, 1991
99. Catalano et al., 1990/91
100. Dembo et al., 1993
101. Catalano et al., 1990/91
102. Moore, 1992; Catalano et al., 1990/91
103. Hubbard et al., 1989
104. Rapp, et al., 1997
105. Catalano et al., 1990/91
106. Catalano et al., 1990/91
107. Catalano et al., 1990/91
108. Dembo et al., 1990
109. Henggeler, 1997a
110. Harrison & Hoffman, 1989
111. Alford et al., 1991

112 . Jainchill et al., 1995

113 . Jainchill et al., 1995

114 . Conducted during the late 1960s and early 1970s.

115 . Conducted from 1979 to 1981.

116 . The CTCR studied six adolescent TCs at nine sites based on a sample of 938 adolescents between 1992 and 1994.

117 . Garrett, 1985, as cited in Catalano et al., 1990-91

118 . Catalano et al., 1990-91; De Leon, 1988; Jainchill et al., 1995

119 . De Leon, 1984; Hubbard et al., 1985; Simpson & Sells, 1982

120 . Jainchill, et al., 1995

121 . Henggeler, 1997; Catalano et al., 1990-91

122 . Brown et al., 1994

123 . In 1990, the Institute of Medicine reported similar findings on adult drug use patterns over time.

124 . Joanning et al., 1992; Amini et al., 1982

125 . Henggeler, 1997

126 . Henggeler, 1997

127 . Amini et al., 1982

128 . Friedman, 1989; Lewis et al., 1990

129 . Szapocznik et al., 1983, 1986

130 . Liddle & Dakof, 1995

131 . Kumpfer et al., 1996; Patterson, 1986

132 . Brook et al., 1990

133 . For example, the Strategic-Structural Systems Engagement technique (Santisteban et al., 1996; Szapocznik, 1988). This modality has proved particularly promising with Hispanic fmailies due to traditionally strong family ties.

134 . An example of this modality is the Multiple Family Group Treatment (MFGT). Due to the large cliet base, the MFGT decreases the impact of differences in ethnicity/socio-economic status (SES) and power between the facilitator and the clients. The MFGT model provides a supportive network for families engaged in addressing similar problems, and promotes the use of community as a resource for at-risk children and parents. Rather than focusing on individual pathology, the group addresses areas which are of concern to all families (McKay et al., 1995).

135 . Coyne & Liddle, 1992; Gurman & Kniskern, 1992

136 . Henggeler & Bourdin, 1990

137 . Liddle et al., 1991

138 . Lewis et al., 1991

139 . Liddle et al., 1991

140 . Henggeler et al., 1991

141 . Henggeler et al., 1991

142 . Joanning et al., 1992; Lewis et al., 1990; Liddle & Dakof, 1992

143 . Joanning et al., 1992; Liddle & Dakof, 1992

144 . Henggeler et al., 1991; Henggeler et al., 1996

145 . Henggeler, 1997

146 . Henggeler et al., 1997; Henggeler et al., 1991

147 . Hawkins et al., 1992; Catalano et al., 1990-91

148. Hawkins et al., 1991
149. Jenson et al., 1995
150. Botvin et al., 1990
151. Gainer et al., 1993
152. Bretherton et al., 1993; Spiro et al., cited in Webster, 1993
153. Gainer et al., 1993; Hammond and Yung, 1991; Larson, 1992
154. Lam, 1989 as cited in Brewer et al., 1995
155. Tolson et al., 1992
156. Brewer et al., 1995
157. Reviewed in Brewer et al., 1995
158. Jones & Offord, 1989
159. Lipsey & Wilson, 1997
160. Lipsey & Wilson, 1997
161. Hayes, 1988; Hubbard et al., 1989
162. Brown, et al., 1989; Godley et al., 1994
163. Spear & Skala, 1995
164. Armstrong, 1991
165. Altschuler & Armstrong, 1991
166. Kindler & Leigh, 1996.
167. Kindler & Leigh, 1996

Appendices

Appendix A: Conducted Interviews

Peter Delaney, DSW
National Institute on Drug Abuse
Interview Subject Expertise: Services needed by adolescent drug users.

Richard Dembo, Ph.D.
Comprehensive Assessment Center, University of South Florida
Interview Subject Expertise: Single-point-of-entry

David Hawkins, Ph.D.
Director and Professor, Social Development Research Group, University of Washington
Interview Subject Expertise: Prevention and early intervention with at-risk families, children and juvenile delinquents.

James Hall, Ph.D.
University of Iowa
Interview Subject Expertise: Skills training and strengths-based case management.

Scott Henggeler, Ph.D.,
Clinical Psychologist, Family Services Research Center, Medical University of South Carolina
Interview Subject Expertise: Multi Systemic Family Therapy, adolescent drug use and chronic juvenile offender interventions.

Carl Leukefeld, Ph.D.
University of Kentucky
Interview Subject Expertise: Treatment services in the justice system and mandated treatment.

Richard Rapp, MSW, ACSW
Wright State University
Interview Subject Expertise: Case management and the continuum of care.

Harvey Siegal, Ph.D.
Wright State University
Interview Subject Expertise: Case management.

Beth Weinman, M.A.
U.S. Bureau of Prisons
Interview Subject Expertise: Treatment services in incarcerated settings.

Appendix B: Culturally-Sensitive Assessment, Intervention, and Treatment

Correlates referred to elsewhere in this paper indicate that ethnicity combines with other factors to impact juvenile substance use/abuse decisions. Statistics indicate that proportionately higher numbers of juvenile detainees are minorities. Too often, minority group membership is characterized by social injustice, differential treatment by society, and a sense of personal impotence and powerlessness.

Clearly, comprehensive program development must address issues of ethnicity and how they relate to assessment, intervention, and treatment in juvenile populations. Research, however, is unable to provide absolutes: too many generalizations lead to stereotypes and prejudice. For this reason, the following broad guidelines focus on increased awareness of cultural differences and how they might affect a juvenile's progress through the justice system.

Culturally Sensitive Assessment

Since both formal and informal assessment is initiated at the juvenile's first point of contact with the system, cultural competencies need to be developed with all front-line staff, including law enforcement, justice system professionals, assessors, case-managers and any others who become involved early in the process. While cultural competence is desirable at all points in the continuum of care, it is crucial that the people making decisions about how the juvenile will be initially processed have knowledge of the role of ethnicity and culture.

Validation of evaluation and assessment instruments has typically been based on European-American values (Canino & Spurlock, 1994; Paniagua, 1994; Ho, 1992). Culturally-sensitive practitioners should select instruments shown to have the least bias with the minority population encountered. According to Flaherty and colleagues (1988), in order to be valid, assessment instruments must have content, semantic, technical, criterion, and conceptual equivalence across cultures. (For lists of recommended instruments, please see Paniagua, 1994; Canino & Spurlock, 1994)

An assessment model developed by R.H. Dana (as summarized by Paniagua, 1994) suggests that the following elements are needed in culturally-sensitive assessment: assessing degree of acculturation, providing culturally-specific service delivery styles, using the client's preferred language when possible, selecting appropriate assessment measures and methods, and cultural sensitivity when informing clients about findings resulting from assessment.

Paniagua (1994) summarizes various assessment methods according to their degree of bias, recommencing that the least-biased method be used whenever possible. Methods which reflect the least cultural bias include physiological assessment, direct observation of behaviors, self-monitoring or behavioral self-reporting scales and instruments and clinical interviews. Methods which show increasing levels of bias include trait measures, self-report of psycho-pathology, and projective tests.

Some general guidelines for culturally sensitive assessments also include asking culturally appropriate questions, focusing on ethnic identification rather than race, addressing SES as this interacts with ethnicity, and self-awareness of prejudices, biases, and stereotypes which may lead to faulty conclusions about the client (Paniagua, 1994; Canino & Spurlock, 1994).

Culturally Sensitive Intervention & Programming

Interventions at any point of system contact (diversion, disposition and sentencing) may have differential effects on adolescents based on their ethnic association. Ethnicity can affect family relationships, self-esteem level, achievement orientation, and perceptions of authority structures and treatment providers (Canino & Spurlock, 1994; Paniagua, 1994). Care must be taken to address considerations of ethnicity in developing interventions which are effective with adolescents from a broad range of backgrounds or that meet the specific needs of a given population.

One intervention option involves improving intergroup relations. This could be done in the context of treatment, supervision, therapy, or community-building activity. In their discussion of designing and implementing effective strategies of this kind, Hawley and his colleagues (1995) provide the following principles:

Effective strategies:

- address individual and institutional sources of prejudice and discrimination in a context relevant to the population targeted for change
- consider diversity within and across groups, acknowledging all to be of equal importance.
- should receive support from those who have authority and power within the structure where they are being implemented.
- are periodically reinforced with old members of the group, and explained to new members.
- should be implemented across related systems as appropriate.
- need to examine diversity of ethnicity, SES, gender, and language, appreciating and acknowledging the strengths inherent in each as well as the challenges.
- should dispel myths which perpetuate stereotypes and prejudices.
- recognize that experience of prejudice and discrimination is unique at the level of the individual and the ethnic group of association, and therefore does not necessarily apply to others.

When developing interventions, it is also important to consider that minority populations may have experienced problems accessing health and mental health services, barriers to education (such as language differences or inappropriate placement in special education programs), and other discrimination based on their ethnicity.

Culturally Sensitive Treatment

Very little research has been done to assess the effectiveness of various treatment modalities with minority adolescent substance abusers. There are various compilations of available literature which suggest general guidelines for treating specific minority populations (for further information, please see Canino & Spurlock, 1994; Paniagua, 1994; and Ho, 1992). Research does indicate that the ethnic identity of the service provider is less important in dictating treatment outcomes than the provider's cultural competence and willingness to consider ethnicity and its impact (Paniagua, 1994).

Appendix C: Assessment Tools

The information below summarizes some of the most frequently utilized and empirically validated screening and mid-range assessment instruments for screening and comprehensively assessing drug and alcohol problems in adolescents. Special attention has been paid to those instruments which have been commonly used with juvenile delinquent populations.

Screening Tools

Several instruments offer brief, non-integrated system measures which screen for alcohol and drug use. However, the majority of these instruments are either normed on non-juvenile delinquent populations or have limited psychometric data available. One notable exception is the Client Substance Index-Short (CSI-S) (Thomas, 1990), which offers promise as a screening protocol being developed through the National Center for Juvenile Justice. The CIS-S is a 15 item, yes/no self-report instrument designed to identify juveniles in the court system who are in need of additional drug abuse assessment. Reliability and validity information were not available at the time of this writing.

Other screening instruments with the most psychometric data include the Adolescent Alcohol Involvement Scale (AAIS) (Mayer & Filstead, 1979), the Adolescent Drug Involvement Scale (ADIS) (Moberg & Hahn, 1991), and the Adolescent Drinking Index (ADI) (Harrell & Wirtz, 1990). Since it is relatively rare for a substance abusing juvenile delinquent to use only one drug, alcohol indexes may be of limited value. For a more comprehensive list of adolescent substance abuse instruments, refer to Leccese and Waldron's (1994) or Winters and Stinchfield's (1995) review of adolescent drug assessment instruments.

Mid-range Comprehensive Assessment Instruments

Several multi-scale tools provide strong assessment information. These tools often include both paper-and-pencil and interview formats and address a range of content domains. Due to variations in comprehensiveness, many of these tools can be described as midrange instruments.

Comprehensive Addiction Severity Index for Adolescents (CASI-A)

The CASI-A is a 45- to 90-minute semi-structured clinical interview to assess the "multidimensional nature of problems experienced by those adolescents who present for treatment at various provider agencies (Meyers, et al., 1995, p. 183)." The length of the interview is dependent upon the extent of the adolescent's drug and alcohol involvement. The CASI-A is patterned after the well-established, adult-oriented Addiction Severity Index (ASI) (McLellan, et al., 1980) to assess symptoms in areas of adjustment which either result from or contribute to the addiction. It measures risk factors, ongoing symptoms, and consequences of alcohol or drug use in seven areas of functioning: education status, alcohol/drug use, family relationships, peer relationships, legal status, psychiatric distress, and use of free time. The instrument incorporates results from a drug urine screen and observations from the assessor.

Reliability and validity information, while preliminary, is encouraging (alpha ranges between .48 and .80 for individual sub-scales). Revisions are being made to those areas where the coefficient alpha dropped below .6 or where correspondence with clinical records fell below 75%. Adolescents were highly satisfied with the structure and format, feeling the instrument was easily understood and allowed them to express themselves clearly. The CASI-A is suitable for repeat administration at post-treatment follow-up evaluations.

Adolescent Chemical Dependency Inventory - Corrections Version II (ACDI-CVII)

The ACDI-CVII is designed for juvenile courts, probation and parole departments and community corrections programs for troubled youth. It contains 143 items presented in a computerized or paper-and-pencil self-report format, and requires 25 minutes to complete. Items are based on a sixth grade reading level. The six measures include: truthfulness, adjustment (coping, adapting and functioning), violence, alcohol, drugs, and distress (anxiety and depression). Gender specific norms have been established for the Alcohol Scale and the Distress Scale (the remaining scales did not have significant gender differences). The instrument's developers (Risk and Needs Assessment, Inc) have reported strong reliability and validity information, although their reports do not appear to be validated by external sources. Validity coefficients for the ACDI and selected MMPI scales ranged between .59 and .69. Internal reliability coefficients ranged between .85 and .92 over repeated administrations with large regional samples (Risk & Needs Assessment, Inc., 1997). The company attempts to re-standardize the instrument on a state-by-state basis.

Other comprehensive assessment instruments

The Adolescent Problem Severity Index (APSI) (Metzger, et al., 1991), has good psychometric information but has not been normed on juvenile offender populations. Other assessment instruments which have more limited psychometric information are reviewed in Leccese and Waldron's (1994) or Winters and Stinchfield's (1995) review of adolescent alcohol and drug assessment instruments.

Appendix D: Promising Program Models

Several programs now being implemented across the United States have developed comprehensive, creative solutions for adolescents in trouble. While formal evaluations are not yet completed or available for all, these program models show potential for meeting the diverse needs of juveniles and their families through systems integration and collaboration. They are included not as model programs, but rather program models which the literature suggests show promise.

ADAPT Program - Haggerty, et al., 1989

The Social Development Model was applied by Haggerty and his colleagues (1989) in ADAPT, a community reintegration program to strengthen bonds between the adolescent and the community. The program recognizes and addresses multiple-risk factors which may affect post-treatment success. A three-month re-entry preparation phase during institutionalization includes skills training in the areas of consequential thinking, impulse control, avoiding trouble, social networking, relapse coping, coping with authority and problem-solving. The six-month aftercare component activates once the adolescent has returned to the community, and incorporates extensive case-management services including skill generalization and maintenance, pro-social activities, pro-social relationships, connections to community resources and work with the home and school environments.

Adolescent Female Treatment Group - Fleisch, 1991

This program acknowledges that many adolescent females referred for treatment also have a history as victims of sexual abuse. Upon intake into county mental health services relating to substance abuse, females are assessed for potential abuse histories and, if appropriate, are referred to this special program. Program components include group counseling, family counseling, education, and social skills development.

Bethesda Day Treatment Center Program - Coordinating Council on Juvenile Justice and Delinquency Prevention, 1996

Called a "model day treatment program," the Bethesda Day Treatment Center Program services include intensive supervision, counseling and coordination of a range of services necessary for youth to develop skills to function effectively in the community. Client-focused services include intake, casework, service and treatment planning, individual counseling, intensive supervision and study skills. Group-focused services include group counseling, life and job skills training, cultural enrichment, and physical education. Family-focused services include counseling, home visits, parent counseling and intervention.

Coordinated Drug Treatment for Youth Project (CDTY) - Cohn, 1995

Created by the area county's Department of Social Services, the CDTY program seeks to provide comprehensive services to dually diagnosed youth. The program incorporates case-management with the youth mental health system using schools and juvenile courts as points of contact with adolescents. The program was found to reduce drug use and delinquent activity in

as many as 77 percent of clients; 92 percent of clients served reported that the program was useful in addressing their problems.

Gateway Program - Davis, 1994

An alternative school program, Gateway provides individual and peer counseling. Students work through issues with journaling, privilege system, supportive linkages to other community service providers. Program counselors work with schools to keep students current in the program.

Life Skills Program - Mathias, 1997

The Life Skills Program is a school-based program designed to prevent or reduce substance use in 7th graders. The program has been shown to be effective with adolescents across gender, SES, and ethnic lines. The program provides some drug education and emphasizes skills including peer resistence and conflict management.

OJJDP's Intensive Supervision of Probationer's (ISP) Program Model - Coordinating Council on Juvenile Justice and Delinquency Prevention, 1996

this is a highly structured, continuously monitored and individualized plan that consists of five phases with decreasing levels of restrictiveness: 1) short-term placement in community confinement, 2) day treatment, 3) outreach and tracking, 4) routine supervision, and 5) discharge and follow-up.

Paint Creek Youth Center - Greenwood & Turner, 1993

Elements in the Paint Creek Youth Center program include small size, absence of physically restrictive barriers such as fences and locked doors, emphasis on personal responsibility, a Problem Oriented Record System which tracks deffiencies as well as assets, cognitive-behavioral methods, clear incentives for positive behavior, family group therapy and group therapy, intensive community reintegration and aftercare services. Although not at statistically significant levels, subjects in this experimental program did show lower drug use than subjects in control programs.

Youth Support Project - Dembo, 1996

The Youth Support Project seeks to improve family functioning through empowering parents. A family systems approach is utilized, including in-home visits, emphasizing the family as a whole within their environment. The program seeks to improve problem-solving, communication, social and community support networks, parental establishment and enforcement of behavioral norms. In addition, staff of the YSP are provided with regular inservice trainings, audio/video review of interactions with families, staff meetings, and inservices in avoiding burnout.

The Weekend Center - Fleisch, 1991

The Weekend Center focuses on first-time offenders. Educational programming, individual therapy, support for 12-step program involvement and intensive day-treatment services are provided. Day treatment services include art therapy, recreational activities, drug education, individual therapy and group counseling. The program emphasizes a strong collaborative network with other service providers/community institutions (school, family, etc.).

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Breaking the Cycle of Drug Use Among Juvenile Offenders: Executive Summary

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Introduction and Purpose

Background and Context

For over two decades, researchers, clinicians and juvenile justice program administrators have been aware of the consistent relationship between drug use and juvenile crime. In many communities, the majority of juveniles entering the justice system are current drug users. In addition, drug use among juvenile delinquents is strongly related to many other social and psychological problems. While there have been many attempts to intervene in the drug-crime cycle, very few of these attempts have been shown to be successful by scientific research.

Purpose

The two primary purposes of this report are to summarize existing knowledge about programmatic attempts to intervene in the juvenile drug-crime cycle and to propose intervention models with the greatest likelihood of successfully addressing the cycle. This paper is based on an extensive review of existing literature and research reports and interviews with researchers who are active in developing and evaluating programs designed to break the drug-crime cycle among juveniles.

The Juvenile Drug-Crime Cycle and the Current Juvenile Drug-Using Population

Compared to previous generations, the current generation of adolescents 1) use drugs at an earlier age; 2) are less involved with opiates and have more involvement with alcohol, marijuana, cocaine and polydrug use;[1] 3) have shorter abuse histories combined with more family deviance and experience of past psychological treatment; 4) tend to be more fascinated with the drug culture and lifestyle and less fatigued with the negative consequences of drug use; 5) have a greater sense of their own invulnerability, and 6) require more emphasis on addressing educational and family/parental support in the treatment process.[2]

The Effectiveness of Interventions in the Juvenile Drug-Crime Cycle

Within this paper, the juvenile justice system processes are examined relative to how drug abuse treatment has or could be offered at the various stages of the process. Three broad conceptual frameworks are utilized in examining the literature and constructing a possible model intervention: 1)case management, 2)system collaboration and 3)graduated sanctions. Within these frameworks, a wide variety of treatment programs and modalities are examined as well as a wide range of supervision options.

Based on the findings from the meta-analysis by Lipsey & Wilson[3] and the review of the range of drug treatment and supervision options available, the following summary represents three levels of knowledge about what is known regarding the effectiveness of drug supervision and treatment programs/modalities. The first level shows programs or modalities with the strongest empirical evidence of effectiveness. The second level highlights existing programs which need further research before conclusions can be made about their effectiveness (particularly related to program costs). The final level shows programs which appear to show little or no evidence of success based on current empirical studies. Both non-incarceration and institutionalization program summaries are provided.

Non-Institutionalized Programs

- Program Options Which Show Good Evidence of Effectiveness
  - Behavioral therapies (family, contingency contracting)
  - Intensive case management including system collaboration and aftercare
  - Multi Systemic Therapy
  - Restitution programs (parole- and probation-based)
  - Skills training

- Program Options Which Require More Research to Document Effectiveness
  - Alcoholics Anonymous/Narcotics Anonymous/Cocaine Anonymous
  - Adult mentoring (with behaviorally contingent reinforcement)
  - After-school recreation programs
  - Conflict resolution/violence prevention
  - Intensive probation supervision
  - Juvenile TASCs
  - Peer mediation
  - Traditional inpatient/outpatient programs (DARP and TOPS studies show such programs are more effective than no treatment)

- Program Options Which Do Not Show Evidence of Effectiveness
  - Deterrence programs
  - Vocational training or career counseling/job search
  - Wilderness challenge programs

Institutionalized Programs

- Program Options Which Show Good Evidence of Effectiveness
  - Behavioral programs (cognitive mediation, stress inoculation training)
  - Longer-term community residential programs (therapeutic communities with cognitive-behavioral approaches)
  - Multiple services within residential communities (case management approach)
  - Skills training (social skills, aggression replacement, cognitive restructuring)
  - Teaching family homes

- Program Options Which Require More Research to Document Effectiveness
  - Day Treatment Centers (to few programs to review)

- Program Options Which Do Not Show Evidence of Effectiveness
  - Boot camps
  - Short-term residential facilities
  - State training schools

Summary and Recommendations

The evaluation data strongly suggest that an integrated, collaborative system that includes comprehensive assessment, referrals to appropriate services, case management along a continuum of care and system collaboration has the greatest probability of yielding successful outcomes. In developing a model system, the following guidelines are recommended:

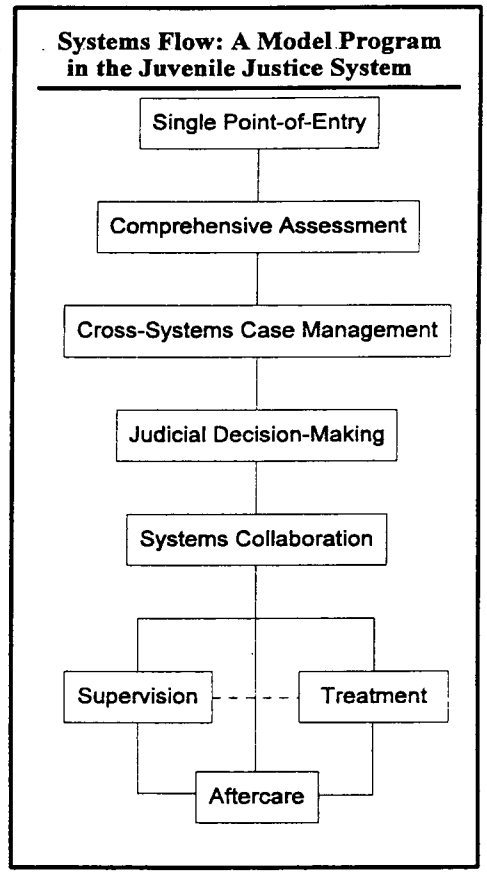
Guiding Principles

1. Interventions should recognize the balance between accountability to the victim and the community, the need to protect the public, and the goal of rehabilitating and reintegrating juveniles.
2. Intervention must take place early when it has the best chance of reversing or ameliorating problem behaviors.
3. Adolescents entering the system must undergo a comprehensive needs assessment.
4. Once needs have been identified, adolescents must be provided with a continuum of care.
5. Collaboration between and across systems relevant to juveniles must be in place.
6. There must be an agent or agency accountable for establishing and maintaining collaboration.
7. Programs must undergo consistent, on-going, rigorously designed evaluation including cost-benefit analysis.
8. Effective interventions must be related to the school, peer, and family systems.
9. Program interventions and staff training must be sensitive to the unique and culturally specific needs of adolescents.
10. It is important to recognize that interventions occur within specific national and local community, educational and economic opportunity structures. A successful intervention should include attempts to ensure high quality educational and job opportunities for those at risk.
11. Given the general lack of experimental evidence supporting more restrictive services, treatment dollars should be targeted toward programs which are less restrictive and are more likely to address juvenile problems in the context in which they occur and are reinforced: the family, the school, and peer groups of the adolescent.

Systems Flow - What a Model Program Might Look Like

The following material provides a brief description of the flow in a comprehensive system based on the review of findings presented in this report and interviews with experts in the field.

Single Point of Entry.
Adolescents would enter the system at a single-point-of-entry such as a Juvenile Assessment Center. The point-of-entry would provide assessment and screening, assign a case manager, and make recommendations for services based on assessment.



Immediate and Comprehensive Assessment. At any point of entry, immediate and comprehensive assessment should be provided. Identification of key needs and problem areas is required to avoid inappropriate referrals, duplication of services, and unnecessarily restrictive placements.

Cross-Systems Case Management. Case management identifies needs, service gaps, and preliminary outcomes through the following functions: involvement with assessment, supporting compliance with recommendations, tracking treatment progress, forging linkages with service providers, and monitoring of random drug testing such as urinalysis. Consistent with principles of client confidentiality and Juvenile Justice System responsibility, a management information system (MIS) should be in place, in which all relevant information would be available to those involved in the provision of services.

Continuum of Care. Recognizing that many delinquent youth have multiple factors which affect their decision to use substances, a continuum of care which provides links to service providers in a variety of areas is crucial. Services provided within the continuum of care should: 1) be community-based whenever possible, 2) involve the family (nuclear and extended), 3) identify and address risk factors, 4) identify and effectively utilize protective factors and resources, 5) be comprehensive and flexible, 6) empower families and communities, 7) aim at modifying personal characteristics, and 8) build positive peer networks.

Judicial Decision-Making. While judicial involvement and decisions may occur at other points, judges would typically become involved after assessment and perhaps after the initiation of case management. In the Juvenile Justice System, the judge may play an active role in leading or monitoring collaboration.

Systems Collaboration. As has been shown, breaking the drug-crime cycle is a complex process that draws upon a wide variety of community agencies and systems. Therefore, it is crucial that the Juvenile Justice System provide linkages between all of the community systems that can contribute to breaking the cycle.

Treatment. In order to increase the probability that treatment will be effective, factors identified as correlating to substance use must be considered. Programs showing the strongest evidence of treatment effectiveness (as summarized in the What Works section above) should be given highest treatment priority.

Utilization of Traditional Services. While many traditional drug services such as inpatient programs, outpatient services, and half-way houses fail to show long-term treatment successes, these services will continue to be needed within the continuum of care. However, these alternatives must begin to incorporate those approaches shown to have the greatest likelihood of success in enhancing long-term outcomes if they are to remain viable parts of the juvenile justice process.

Aftercare. It is beneficial for both the Juvenile Justice System and the juvenile to maintain contact after formal systems processing has been completed. To maintain ongoing evaluation efforts, the Juvenile Justice System benefits from continued monitoring of and involvement with the client system. For the juvenile, aftercare maintains gains made in treatment and programming during the transition from treatment to community.

Implementation at the Local Level

In order to successfully implement the strategies outlined above at the local level, support from all relevant components of the Juvenile Justice System and the community is mandatory. Although mandated treatment can be successful for adolescents, gains made need to be sustained once the adolescent returns to his or her community. The following steps comprise a suggested strategy for implementing model programs at the local level.

First: Planners should conduct a community assessment in order to identify Juvenile Justice System willingness to participate and provide leadership (especially judicial willingness), identify potential resources, understand community expectations, determine level of community support for program goals and objectives, and identify existing collaborative structures.

Second: All major systems in which the adolescent interacts (schools, churches, families, etc.) need to be invited to participate with the courts in the development of strategies and services.

Third: The Juvenile Justice System at the local level must be committed to making referrals a reality. In maintaining the delicate balance between accountability and rehabilitation, the Juvenile Justice System serves as the link between the needs of the juvenile and the needs of the larger community.

Fourth: Those responsible for implementing any element of the overall plan should receive any necessary training prior to implementation.

Fifth: Mechanisms must be put in place to ensure that collaborative program efforts are sustainable. Transitions into new initiatives should be planned and gradual, allowing time for necessary training and problem-solving. Alternative strategies and processing options should be available as often as possible for staff charged with implementing new programs. At all levels (administration, management, and direct service staff), commitment to cross-systems collaborative principles is needed to sustain effort and create an environment in which collaboration can occur.

Finally: The implementation phase of any project potentially involves conflict, which can result in wasted resources and energy or even lead to program destruction. Within a collaborative system, successful mediation of conflict involves taking various perspectives of the problem situation into account and then attempting to reach consensus on how best to resolve them.

Conclusion

The nature of juvenile drug use, drug treatment and crime is complex. Future programmatic attempts to break the juvenile drug-crime cycle must be based on knowledge gained from past work and research. This paper has been an attempt to summarize such knowledge. The authors are hopeful that the information presented here will provide a useful contribution to the work of collaborative partners in Juvenile Justice System, drug treatment programs, and a wide variety of community agencies as they search for ways to intervene with the drug-crime cycle.

Endnotes

1 . DeLeon & Deitch, 1987; Johnston et al., 1996

2 . Dembo et al., 1993

3 . Lipsey & Wilson, 1997

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