

Screening and Assessment of Co-Occurring Disorders in the Justice System

Roger H. Peters, Ph.D., Marla G. Bartoi, Ph.D., and Pattie B. Sherman, M.A.

Department of Mental Health Law and Policy
Louis de la Parte Florida Mental Health Institute
University of South Florida

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CMHS National GAINS Center
Policy Research Associates, Inc.
345 Delmar, NY 12054
Phone: (800) 311-GAIN
FAX: (518) 439-7612
E-mail: gains@prainc.com

www.gainscenter.samhsa.gov



Substance Abuse and Mental Health Services Administration
Center for Mental Health Services

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Executive Summary

A significant and growing number of persons in the justice system have co-occurring mental and substance use disorders. For example, over 70 percent of offenders have substance use disorders, and as many as 15 percent have major mental disorders — rates that greatly exceed those found in the general population (Ditton, 1999; National GAINS Center, 2004; Peters, Greenbaum, Edens, Carter, & Ortiz, 1998). Persons with co-occurring disorders present numerous challenges within the justice system. These individuals exhibit greater impairment in psychosocial skills, are less likely to enter and successfully complete treatment, and are at greater risk for criminal recidivism and relapse. The justice system is generally ill equipped to address the multiple needs of this population, and few specialized treatment programs exist in jails, prisons, or court or community corrections settings that provide integrated mental health and substance abuse services (Peters, LeVasseur, & Chandler, 2004).

Of major concern is the failure to effectively screen and assess persons with co-occurring disorders in the justice system (Chandler, Peters, Field, & Juliano-Bult, 2004). Key problems related to screening and assessment include: failure to comprehensively examine one or more of the co-occurring disorders; inadequate staff training to identify and assess the disorders; bifurcated mental health and substance abuse service systems that feature separate screening and assessment processes; use of ineffective screening and assessment instruments; and the absence of management information systems to identify and track this population. Another challenge in conducting screening and assessment is determining whether psychiatric symptoms are caused by recent substance abuse or reflect the presence of a mental disorder. Several other important threats to the accuracy of screening and assessment information include the disabling effects of co-occurring disorders on memory and cognitive function and the perceived consequences related to self-disclosure of mental health or substance abuse problems. Failure to accurately identify offenders with co-occurring disorders often prevents their involvement in treatment or leads to inappropriate placement in treatment (e.g., in less intensive services than are needed), resulting in high rates of criminal recidivism following release from custody and utilization of expensive community resources such as crisis care and hospital beds.

This monograph provides an overview of the systemic and clinical challenges in screening and assessment of persons with co-occurring disorders involved in the criminal justice system. The most current state-of-the art screening and assessment practices and instruments are reviewed to help guide administrators,

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providers, case managers, and other staff in developing and operating effective programs for these individuals.

Accurate screening and assessment of co-occurring disorders in the justice system is essential for rapid engagement in specialized treatment and supervision services. Screening for co-occurring disorders should be provided at the earliest possible point in the justice system to expedite consideration of these issues in decisions related to sentencing, release from custody, placement in institutional or community settings, and referral to treatment and other related services. Due to the high prevalence of co-occurring disorders among offenders, all screening and assessment protocols used in justice settings should address both disorders. The high prevalence of trauma and physical/sexual abuse among offenders indicate the need for universal screening in this area as well. Motivation for treatment is an important predictor of treatment outcome and can be readily examined during screening. Drug testing is also an important component of screening and serves to enhance motivation and adherence to treatment. Cultural differences should be considered when conducting screening and assessment, and staff training is needed to effectively address these issues.

A wide range of screening and assessment instruments are available to gather information regarding offenders' mental and substance use disorders. These instruments differ significantly in cost, time to administer, training requirements, application to criminal justice settings, and effectiveness as measured by reliability and validity. Fortunately, a number of screening and assessment instruments are effective for use with offenders who have co-occurring disorders, and are available free of charge or at low cost.

Recommended *screening* instruments for co-occurring disorders in the justice system include:

- Either the Global Appraisal of Individual Needs (GAIN-SS) or the Mental Health Screening Form-III (MHSF-III) to address mental health symptoms,
- (and)
- Either the Simple Screening Instrument (SSI) or the Texas Christian University Drug Screen-II (TCUDS-II) to address substance abuse symptoms.

The Substance Abuse Subtle Screening Inventory (SASSI-3) should be avoided for use as a screening or assessment instrument in justice settings due to concerns about the instrument's validity. Studies also indicate that the SASSI is significantly less effective than other instruments in detecting substance use disorders among offenders.

Recommended *assessment* instruments for co-occurring disorders in the justice system include:

- Either the Psychiatric Research Interview for Substance and Mental Disorders (PRISM),

(or)

- A combination of either the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), the Millon Clinical Multiaxial Inventory-III (MCMI-III), or the Personality Assessment Inventory (PAI) to examine mental disorders,
(and)
- The Addiction Severity Index (ASI) to examine substance use disorders.

For ease of reference, several types of screening and assessment instruments discussed in the monograph are listed in the appendices, as indicated below:

- Drug Testing Methodologies (Appendix A)
- Screening Instruments for Suicide Risk (Appendix B)
- Screening Instruments for Trauma and PTSD (Appendix C)
- Screening Instruments for Motivation and Readiness for Treatment (Appendix D)
- Recommended Instruments for Screening of Co-Occurring Disorders (Appendix E)
- Screening Instruments that Address Both Mental and Substance Use Disorders (Appendix F)
- Screening Instruments for Mental Disorders (Appendix G)
- Screening Instruments for Substance Use Disorders (Appendix H)
- Recommended Instruments for Assessment of Co-Occurring Disorders (Appendix I)
- Assessment Instruments that Address Both Mental and Substance Use Disorders (Appendix J)
- Assessment Instruments for Mental Disorders (Appendix K)
- Assessment Instruments for Substance Use Disorders and Related Protocols (Appendix L)
- Instruments for Diagnosis of Co-Occurring Disorders (Appendix M)

Assessment and diagnosis are particularly important in developing a treatment plan and in determining specific problem areas that can be effectively targeted for treatment interventions. Key diagnostic instruments include the Diagnostic Interview Schedule — Fourth Edition (DIS-IV) and the Structured Clinical Interview for DSM-IV (SCID). The American Society of Addiction Medicine (ASAM, 2001) has developed a set of Patient Placement Criteria (PPC) that can be used in matching individuals to different levels of treatment and that includes guidelines for placement of persons with co-occurring disorders.

Ongoing training should be provided for staff involved in the screening and assessment of co-occurring disorders in the justice system. Training should be provided in detecting signs and symptoms of co-occurring disorders, understanding complicated symptom presentation (e.g., mimicking, masking),

using integrated screening and assessment instruments, employing strategies to enhance accuracy during interviews, drug testing, differential diagnosis, and initiating referral for assessment and treatment.

Prevalence and Significance of Co-Occurring Disorders in the Justice System

The criminal justice system has grown dramatically in the past several decades. Since 1993 alone, the number of individuals who are housed in U.S. jails and prisons has risen from 1.3 million (Gilliard & Beck, 1994) to almost 2.3 million in 2006 (Harrison & Beck, 2006). Over three percent of the U.S. adult population is currently under some form of criminal justice supervision (Glaze & Bonczar, 2006). This significant increase in the justice system results from changes in drug laws and law enforcement practices and from the erosion of public services for people who are homeless, people with mental illness, and people who are impoverished. An increasing number of individuals in jails, prisons, and in community settings have mental health and substance abuse problems. For example, recent estimates from the U.S. Department of Justice's Bureau of Justice Statistics (BJS) indicate that 24 percent of individuals in state prisons have a recent history of mental disorders, and 49 percent report symptoms of a mental disorder (James & Glaze, 2006). When more precise diagnostic measures of mental health symptomatology are used, estimates of persons with mental illness in jails and prisons range from 10 to 15 percent of criminal justice populations (Lamb, Weinberger, & Gross, 2004; National GAINS Center, 2004; Teplin, 1994; Teplin, Abram, & McClelland, 1996).

Rates of mental illness and substance abuse among justice-involved individuals are significantly higher than in the general population. For example, individuals in prison are diagnosed with schizophrenia at four times the rate as those in the general population (Robins & Regier, 1991). Well over half of all incarcerated individuals have significant substance abuse problems (Belenko, Peugh, Califano, Usdansky, & Foster, 1998). The lifetime prevalence of substance abuse or dependence disorders among individuals in prison is 74 percent, including 46 percent for drug dependence and 37 percent for alcohol dependence (Peters, Greenbaum, Edens, Carter, & Ortiz, 1998), rates that far surpass those found in the general population (Robins & Regier, 1991).

Complicating the situation is that a significant proportion of justice involved individuals have co-occurring mental health and substance use disorders (National GAINS Center, 2004). Approximately 80 percent of individuals on probation who are sentenced to participate in substance abuse treatment have co-occurring mental disorders (Hiller, Knight, Broome, & Simpson, 1996). In other studies, half of justice-involved women were identified as having co-occurring disorders (Jordan, Schlenger, Fairbank, & Caddell, 1996), and over half of detainees in

juvenile detention centers were diagnosed as having co-occurring disorders (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). Other studies indicate that 72–87 percent of justice-involved individuals with severe mental disorders have co-occurring substance use disorders (Abram & Teplin, 1991; Abram, Teplin, & McClelland, 2003; Chiles, Cleve, Jemelka, & Trupin, 1990; James & Glaze, 2006). Despite the high rates of co-occurring disorders, relatively few justice-involved individuals report receiving adequate treatment services for these disorders in jails, prisons, or other justice settings (National GAINS Center, 2004; Peters, LeVasseur, & Chandler, 2004). Moreover, few existing specialized co-occurring disorders treatment programs have been developed in justice settings (Peters et al., 2004).

Individuals with co-occurring disorders present significant challenges to those working in all areas of the criminal justice system and other social service systems (National Alliance on Mental Illness, Ohio, 2005). A major challenge involves the rapid cycling of people with co-occurring disorders through different parts of the criminal justice and social service systems, including law enforcement, jail, community emergency services, and shelters. These individuals are frequently unemployed, homeless, lacking in vocational skills, and have few financial or social supports (Peters, Sherman, & Osher, in press).

Co-occurring disorders are also associated with compromised psychosocial functioning which place offenders at risk of a range of negative outcomes, including:

- Pronounced difficulties in employment, family, and social relationships
- More serious medical problems
- Reduced ability to refrain from substance use
- Premature termination from treatment
- More rapid progression from initial drug use to drug dependence
- More frequent hospitalizations
- Housing instability or homelessness
- Poor prognosis for completion of treatment
- Noncompliance with medication and treatment interventions
- Higher rates of depression and suicide
- Poor level of engagement and participation in treatment
- Criminal justice recidivism

When released from prison, jail, or residential treatment facilities, persons with co-occurring disorders often have little or no access to the medications that stabilized them prior to release, and experience difficulties engaging in community mental health and drug treatment services (Osher, Steadman, & Barr, 2002, 2003; Weisman, Lamberti, & Price, 2004). Other barriers to community integration include lack of affordable housing and transportation, and the termination of income supports and entitlements. Coordinating the diverse medical, mental health, substance abuse, and supervision needs of these individuals can be a

daunting task, and often requires the ability to navigate among service systems, institutions, and agencies that have very different missions, values, organizational structures, and resources (Chandler, Peters, Field, & Juliano-Bult, 2004).

Despite these challenges, an increasing number of co-occurring disorders treatment programs have been successfully implemented in justice settings (Peters et al., 2004). Most comprehensive programs in justice settings provide an integrated treatment approach, consistent with evidence-based practices developed in non-justice settings (National Institute on Drug Abuse, 2006). Research indicates that comprehensive prison treatment programs for co-occurring disorders can significantly reduce recidivism, and that the addition of community reentry services can further reduce recidivism (Sacks, Sacks, McKendrick, Banks, & Stommel, 2004).

Defining Co-occurring Disorders

Various terms have been used to describe mental and substance use disorders that co-occur, including co-occurring disorders, co-morbidity, dual disorders, and dual diagnosis. These terms vary in their meaning and use across criminal justice settings. The term co-occurring disorders has achieved acceptance within the practitioner and scientific communities and within federal agencies over the past 15 years, and is most commonly used to indicate the presence of a concurrent DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders, Text Revision; American Psychiatric Association [APA], 2000) Axis I major mental disorder and a substance use disorder. This distinction helps to ensure that treatment and supervision resources are focused on individuals who have the most profound bio-psychosocial problems and who are at the highest risk for criminal recidivism and readmission to jail and prison.

A variety of secondary issues may complicate the identification of co-occurring disorders, including other disorders, such as personality or sexual disorders, and developmental disabilities. While all of these issues present valid focal areas to be addressed in working with individuals in the criminal justice system, they generally do not involve the same level of bio-psychosocial impairment as co-occurring Axis I mental and substance use disorders. Even when services in the criminal justice system are specifically designed to address co-occurring disorders, there are often pressures to refer individuals to treatment who have severe behavioral problems or more pronounced personality disorders (e.g., antisocial and borderline personality disorders) rather than Axis I mental disorders. It becomes critical to carefully define the target population within the larger population and to implement rigorous procedures for screening, assessment, and referral when treatment resources are scarce. This reserves specialized services for individuals who can benefit the most.

Several state and national initiatives have attempted to classify individuals with co-occurring disorders according to the severity of their mental health and

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substance abuse problems (Center for Substance Abuse Treatment [CSAT], 2005a; National Association of State Mental Health Program Directors [NASMHPD] & National Association of State Alcohol and Drug Abuse Directors [NASADAD], 1999). One common model defines four “quadrants,” or groups of individuals who have varying levels of mental health and substance abuse problem severity. This model reflects the diversity of individuals who have co-occurring disorders, and can potentially help to match individuals to appropriate levels of intensity of treatment and supervision (Peters & Osher, 2003).

Should a Distinction Be Made Between “Primary” and “Secondary” Disorders?

In the past, individuals with co-occurring disorders have been provided diagnoses according to which set of symptoms appeared first.

- A “primary” disorder indicated that symptoms predated the other co-occurring disorder.
- A “secondary” disorder indicated that symptoms followed those of the other co-occurring disorder.

One outgrowth of this approach was the belief that treating the “primary” disorder would be sufficient to resolve the “secondary” co-occurring disorder. This simplistic strategy led to the exclusion of individuals from mental health or substance abuse services and shifting individuals with co-occurring disorders between systems, resulting in poor treatment outcomes. The current consensus is that distinctions between “primary” and “secondary” disorders based on time of symptom onset are not useful and should be avoided (CSAT, 2006).

Best practice approaches for justice-involved individuals who have co-occurring disorders recognize the interactive nature of the disorders and the need for ongoing examination of the relationship between the two disorders. Attention to the interactive nature of the disorders should be reflected in ongoing assessment activities, treatment planning, and all clinical services provided. This approach does not mean that services always reflect an equal amount of time allocated to both disorders. Issues such as acute crises (e.g., suicidal behavior, intoxication) and cognitive impairment affecting treatment participation will dictate the degree to which mental health and substance abuse needs are addressed at any particular stage of treatment. The focus of treatment at any given time should be on the degree of functional impairment caused by either condition or the interaction between the two disorders, with the sequence of interventions dictated by the severity of impairment in a particular focal area.

Importance of Screening and Assessment for Co-Occurring Disorders in Justice Settings

Individuals with co-occurring disorders differ widely in type, scope, and severity of symptoms and in complications related to their disorders. Screening and assessment provide the foundation for identification, triage, and treatment interventions. These complementary activities are key components of the treatment planning process, assisting in identifying substantive areas to be addressed (including secondary issues such as personality disorders, sexual disorders, and learning disabilities) and the sequence, intensity, and duration of interventions.

Unfortunately, screening and assessment are not routinely conducted in many criminal justice or other treatment settings, and as a result, mental and substance use disorders are underdiagnosed (Abram & Teplin, 1991; Drake et al., 1990; Drake, Rosenberg, & Mueser, 1996; Peters, 1992; Teplin, 1983). In some justice settings, identification of co-occurring disorders is hampered by parallel screening and assessment activities for mental and substance use disorders. Independent screening and assessment leads to non-detection of co-occurring disorders, inadequate information sharing, poor communication regarding overlapping areas of interest, and failure to develop integrated service goals that address both mental health and substance abuse issues. Another common problem is that information gathered in community settings or other parts of the criminal justice system may not follow the individual, making decisions about placement in treatment, community release, or sentencing difficult.

Among the reasons cited for non-detection of co-occurring disorders in the justice system are:

- Lack of staff training
- Lack of established protocols related to diagnosis and treatment
- Perceived negative consequences associated with self-disclosure of symptoms
- Mimicking or masking of symptoms of one disorder by symptoms of the co-occurring disorder
- Cognitive and perceptual difficulties associated with severe mental illness or toxic effects of recent alcohol or drug use

(Chandler et al., 2004)

Low detection rates of co-occurring disorders may also be attributable to the absence of screening procedures in justice settings to comprehensively examine both mental health and substance abuse issues (Peters & Hills, 1997; Peters et al., 2004).

Inaccurate detection of co-occurring disorders in justice settings may result in:

- Recurrence of symptoms while in secure settings
- Increased risk for recidivism
- Missed opportunities to develop intensive treatment conditions as part of release or supervision arrangements
- Failure to provide treatment or neglect of appropriate treatment interventions
- Overuse of psychotropic medications
- Inappropriate treatment planning and referral
- Poor treatment outcomes

(Chandler et al., 2004; Drake, Alterman, & Rosenberg, 1993; Osher et al., 2003; Peters et al., in press; Teague, Schwab, & Drake, 1990).

Once co-occurring disorders are identified in justice settings, the challenge is to provide specialized treatment and transition services. Justice-involved individuals with co-occurring disorders exhibit more severe psychosocial problems, poorer institutional adjustment, and greater cognitive and functional deficits than other individuals (Edens, Peters, & Hills, 1997). Comprehensive treatment practices involve integrating mental health and substance abuse services (Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998) and require coordination between behavioral health and criminal justice system staff. Unfortunately, treatment providers in these two areas often have different approaches to working with these individuals. Finally, most jurisdictions have few resources to support community transition and follow-up treatment activities for justice-involved individuals with co-occurring disorders (Travis, Solomon, & Waul, 2001).

Defining Screening and Assessment

Individuals in the justice system who have co-occurring disorders are characterized by diversity in the scope and intensity of mental health, social, medical, and other problems. As a result, no single clinical approach fits the needs of all these persons, and effective and comprehensive screening and assessment procedures are of paramount importance in defining the sequence, format, and nature of needed interventions. Screening and assessment of co-occurring disorders are part of a larger process of gathering information that begins at the point of contact of the individual with the criminal justice system. The Center for Substance Abuse Treatment TIP monograph #42 (CSAT, 2005a) outlines a set of sequential steps that are often followed in gathering information related to co-occurring disorders. These steps provide a blueprint for developing a comprehensive system of screening and assessment activities, and include the following:

- Engage the offender
- Collect collateral information (e.g., from family, friends, other providers)

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- Screen and detect co-occurring disorders
- Determine severity of mental health and substance abuse problems
- Determine the level of treatment services needed
- Diagnosis
- Determine level of disability and functional impairment
- Identify strengths and supports
- Identify cultural and linguistic needs and supports
- Describe key areas of psychosocial problems
- Determine offender's level of motivation and readiness for treatment (i.e., "stage of change")
- Develop an individualized treatment plan

Screening

Screening is a brief, routine process designed to identify indicators, or "red flags," for the presence of mental health and/or substance use issues that reflect an individual's need for treatment and for alternative types of supervision and/or placement in housing or institutional settings. Screening may include a brief interview, use of self-report instruments, and a review of archival records. Brief self-report instruments are often used to document psychiatric symptoms and patterns of substance abuse and related psychosocial problems.

In criminal justice settings, screening should be conducted for all individuals shortly after entry. While separate screening instruments have been developed to detect mental health and substance use issues in the criminal justice system, until recently few instruments were available for examining co-occurring disorders. Screening is conducted early in the process of compiling information, and the results inform the need for assessment and diagnosis (Drake & Mercer-McFadden, 1995).

The goals of screening include:

- Detection of current mental health and substance use symptoms and behaviors
- Determination as to whether current symptoms or behaviors are influenced by co-occurring disorders
- Examination of cognitive deficits
- Identification of violent tendencies or severe medical problems that may need immediate attention
- Determination of eligibility and suitability for specialized co-occurring disorders treatment services

It is important to consider the multiple types and purposes of screening. A series of screenings may be provided in jails and prisons to address a variety of issues. Classification screening is conducted early on to identify security risks

(e.g., history of escape, past aggressive behavior within the institution) and to determine program needs and placement issues. Medical screening identifies health issues and may cover mental health status and substance use history. Mental health and substance abuse screenings often are included within interviews conducted by pretrial services or other court-related agencies. Screening for vocational and educational deficits assists in identifying needed services. In community corrections settings, pre-sentence or post-sentence investigations (PSI's) are frequently completed by local community corrections staff to assist in determining the judicial disposition or in case planning.

Assessment

Assessment is typically conducted through a clinical interview and may include psychological, laboratory, or other testing, and compilation of collateral information from family, friends, and others close to the individual. Assessment provides a comprehensive examination of psychosocial needs and problems, including the severity of mental and substance use disorders, conditions associated with the occurrence and maintenance of these disorders, problems affecting treatment, individual motivation for treatment, and areas for treatment interventions. As indicated previously, assessment is an ongoing process that often includes engagement, identification of strengths and weaknesses, examination of motivation and readiness for change, review of cultural and other environmental needs, diagnosis, and determination of the appropriate setting and intensity/scope of services necessary to address co-occurring disorders and related needs. A multi-staged assessment model for co-occurring disorders is described in several recent monographs published by the Center for Substance Abuse Treatment (CSAT, 2005a; 2006).

Goals of the assessment process include:

- Examination of the scope and severity of mental and substance use disorders, and conditions associated with the occurrence and maintenance of these disorders
- Development of diagnoses according to formal classification systems (e.g., DSM-IV-TR)
- Identification of the full spectrum of psychosocial problems that may need to be addressed in treatment
- Determination of the level of service needs related to mental and substance abuse problems
- Identification of the level of motivation and readiness for treatment
- Examination of individual strengths, areas of functional impairment, cultural and linguistic needs, and other environmental supports that are needed
- Evaluation of risk for behavioral problems, violence, or recidivism that may affect placement in various institutional or community settings
- Provision of a foundation for treatment planning

Developing a Comprehensive Screening and Assessment Approach

Integrated (or blended) screening and assessment approaches should be used to examine co-occurring disorders in the criminal justice system. In the absence of specialized instruments to address both disorders, an integrated screening approach typically involves use of a combination of mental health and substance abuse instruments. Integrated screening and assessment approaches are associated with more favorable outcomes (Kofoed, Dania, Walsh, & Atkinson, 1986) and help to maximize the benefits of scarce treatment resources. Screening and assessment can help to determine the relationship between co-occurring disorders and prior criminal behavior, and to identify the need for criminal justice supervision. Because of the high rates of co-occurring disorders in justice settings, detection of one type of disorder (i.e., either mental or substance use) should immediately “trigger” screening for the other type of disorder. In general, the presence of mental health symptoms is more likely to signal a substance use disorder than substance use symptoms to signal a mental disorder. If both mental and substance use disorders are present, the interaction of these disorders and motivation for treatment should be assessed.

Recommendations for developing a comprehensive screening and assessment approach include the following:

- All individuals entering the criminal justice system should be screened for mental and substance use disorders. Universal screenings are warranted due to the high rates of co-occurring disorders among individuals in the criminal justice system and to the negative consequences for non-detection of these disorders.
- Screening should be routinely conducted for history of trauma and abuse, particularly among female offenders who are affected disproportionately by these problems.
- Mental health and substance abuse screening should be completed at the earliest possible point after involvement in the criminal justice system. For example, identification of these problems among pretrial defendants will assist the judge to establish conditions of release (e.g., drug testing, involvement in treatment) that will increase the likelihood of stabilization in the community and of the individual's return for additional court hearings.
- Ongoing screening for co-occurring disorders should be provided at the different stages of criminal justice processing, such as diversion, admission to jail, pretrial and presentence hearings, sentencing, probation, admission to prison, parole or aftercare, and revocation hearings. Ongoing screening will help to identify individuals who are initially reluctant to discuss mental health or substance abuse problems, but who may

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become more receptive to involvement in treatment services over time. For example, some individuals may seek treatment after learning more about correctional program services; others may experience mental health symptoms while incarcerated and elect treatment.

- Whenever feasible, similar or standardized screening instruments for co-occurring disorders should be used across different justice settings, with information regarding the results shared among all settings involved. This approach promotes greater awareness of co-occurring disorders and needed treatment interventions and reduces unnecessary repetition of screening and assessment for individuals identified as having co-occurring disorders.
- Information from previously conducted screening and assessment should be communicated across different points in the criminal justice system. A systemic approach to information sharing is needed, including development of memoranda of understanding/agreement among agencies having contact with the offender at different linkage points.

Key Information to Address in Screening and Assessment for Co-Occurring Disorders

Individuals with co-occurring disorders are characterized by diversity in the scope, severity, and duration of symptoms; functional abilities; and responses to treatment interventions (Lehman, 1996; Mueser, Noordsy, Drake, & Fox, 2003). The intertwined nature of mental and substance use disorders is reflected in the latest edition of the American Psychiatric Association's DSM-IV-TR (2000), which differentiates between mental disorders and a range of other "substance-induced" mental disorders. Each set of co-occurring disorders is characterized by differences in prevalence, etiology, and history. The following section specifies key information that should be examined during screening and assessment of co-occurring disorders in criminal justice settings.

Risk Factors for Co-Occurring Disorders

A number of characteristics and indicators reflect a risk of developing co-occurring disorders (Drake et al., 1996; Lehman & Dixon, 1995; Mueser, Bennett, & Kushner, 1995). Justice-involved individuals who have several of these characteristics should be carefully screened for co-occurring disorders. As more of these characteristics are observed, there is a greater likelihood of co-occurring disorders and a corresponding need for more detailed screening for mental health and substance abuse problems. The following characteristics carry elevated risk for co-occurring disorders:

- Male gender
- Youthful offender status
- Low educational achievement

- History of unstable housing or homelessness
- History of legal difficulties and/or incarceration
- Suicidality
- History of emergency room or acute care visits
- High frequency of substance abuse relapse
- Antisocial or drug-using peers
- Poor relationships with family members
- Family history of substance use and/or mental disorders
- Poor adherence to treatment
- History of disruptive behavior

Observable Signs and Symptoms of Co-Occurring Disorders

In addition to the previously listed risk factors, observable signs and symptoms of mental and substance use disorders should be reviewed during screening and assessment. These include the following:

- Unusual affect, appearance, thoughts, or speech (e.g., confusion, disorientation, rapid or slurred speech)
- Suicidal thoughts or behavior
- Paranoid ideation
- Impaired judgment and risk-taking behavior
- Drug-seeking behaviors
- Agitation, tremors, or both
- Impaired motor skills (e.g., unsteady gait)
- Dilated or constricted pupils
- Elevated or diminished vital signs
- Hyper-arousal or drowsiness
- Muscle rigidity
- Evidence of current intoxication (e.g., alcohol on breath)
- Needle track marks or injection sites
- Inflamed or eroded nasal septum
- Burns on the inside of the lips

Mental Health Indicators

Mental health indicators should be examined when screening or assessing for co-occurring disorders, including:

- Acute and observable mental health symptoms
- Suicidal thoughts and behavior

- Age of onset of mental health symptoms
- Mental health treatment history (including hospitalizations), response to treatment, and use of psychotropic medication
- History of trauma and abuse
- Disruptive or aggressive behavior
- Family history of mental illness

Substance Use Indicators

Similarly, substance use indicators suggest the presence of co-occurring disorders:

- Evidence of acute drug or alcohol intoxication
- Signs of withdrawal from drugs or alcohol
- Signs of escalating drug or alcohol usage (e.g., from results of drug testing)
- Negative psychosocial consequences associated with substance use
- Self-reported substance abuse, including:
 - ▶ Age at first use
 - ▶ History of use
 - ▶ Current pattern of use
 - ▶ Drug(s) of choice
 - ▶ Motivation for using
- Prior substance abuse treatment history, including detoxification, rehabilitation, and residential treatment
- Peers and associates who are drug users or who have antisocial features
- Family history of substance abuse
- History of overdose

Cognitive and Behavioral Impairment

Screening and assessment can be useful in detecting key cognitive and behavioral features related to co-occurring disorders, which can influence the course of treatment and may inform the type and format of treatment provided. One area that typically does not receive sufficient attention during screening and assessment of co-occurring disorders is cognitive and behavioral impairment related to psychosocial and interpersonal functioning. This functional impairment often affects the individual's ability to engage and effectively participate in treatment (Bellack, Bennett, & Gearon, 2007). Impairment in interpersonal or social skills is important to assess, as this influences the ability to interact with treatment staff, supervision officers, and other treatment team members. Related areas of functional ability include reading and writing skills, and how the individual responds to confrontation or stress, manages unusual thoughts and impulses, and handles finances.

These areas of cognitive and behavioral impairment are not frequently examined through traditional mental health or substance abuse assessment instruments, and yet are often more important than diagnoses in predicting treatment outcome and identifying needed treatment interventions. Assessment of functional impairment typically requires extended observation of the individual's behavior in settings relevant to the treatment and reentry process. An understanding of functional impairment, strengths, supports, skills deficits, and cultural barriers is essential to developing an informed treatment plan and to selecting appropriate levels of treatment services (CSAT, 2005a).

Individuals with co-occurring disorders often have significant cognitive impairment, including deficits related to concentration and attention, verbal memory, and planning abilities or “executive functions” (Bellack et al., 2007). In comparison to other offenders, those with co-occurring disorders are characterized by the following cognitive and behavioral impairments:

- Difficulties in comprehending, remembering, and integrating important information, such as guidelines regarding treatment and supervision
- Lack of recognition of the consequences related to criminal behavior or violations of community supervision arrangements
- Poor judgment (e.g., related to substance use, discontinuation of medication)
- Disorganization in major life activities (e.g., lack of structure in daily activities, lack of follow through with directives)
- Short attention span and difficulty concentrating for extended periods
- Poor response to confrontation and stressful situations
- Impairment in social functioning
- Less motivation to engage in treatment activities

These cognitive and behavioral deficits are important to consider in the context of screening and assessment for several reasons. First, they may influence the accuracy of information obtained during screening and assessment. Assessments may need to be administered in several sessions for individuals who have difficulty concentrating for sustained periods. Second, these deficits may affect the outcomes of treatment and supervision, and should be considered in determining the intensity, duration, and scope of treatment and supervision. Finally, they may actually become the focus of treatment and supervision activities through interventions such as skills training and motivational enhancement activities. Unfortunately, many of these complex areas of cognitive and behavioral functioning are not easily measured or assessed using traditional instruments. Assessment of these areas is most effectively accomplished over a period of time and through an approach that incorporates observation, interview of collateral sources, review of records, and use of specialized assessment instruments.

... understanding of functional impairment, strengths, supports, skills deficits, and cultural barriers is essential to developing an informed treatment plan and to selecting appropriate levels of treatment services (CSAT, 2005a)

Other Psychosocial Areas of Interest

A number of demographic and psychosocial indicators should be reviewed when examining co-occurring disorders. Assessment should examine educational history, housing and living arrangements, social interactions and lifestyle, peer pressure to use drugs and alcohol, family history, and current support systems. The stability of the home and social environment should also be assessed, including the occurrence of violence and effects of the home and other relevant social environments (e.g., work, school) on substance use. Vocational and employment history, psychosocial skills, training needs, financial support, and eligibility for entitlements are other critical elements of information to be gathered. Assessing individual strengths and environmental supports can help to establish strategies for managing mental and substance use disorders, identify key interests and skills, and determine expectancies related to treatment (CSAT, 2005a).

Cultural and linguistic issues are also important in designing treatment interventions for co-occurring disorders (CSAT, 2005a). Cultural beliefs, for example, may impact perceptions about mental and substance use disorders, treatment services, and the role of treatment professionals. They may influence the ability or willingness to adapt to the treatment culture and to handle conflict. Deficiencies in reading and writing skills may also influence the ability to successfully engage in treatment planning and other key activities.

Criminal Justice Information

Assessment of co-occurring disorders in the justice system should include careful examination of the criminal history and current criminal justice status. The pattern of prior criminal offenses may reveal important information regarding how mental health and substance abuse problems have affected criminal behavior. The criminal justice history may also help to identify the need for supervised reentry, case management services, placement in structured residential programs following release from custody, and relapse prevention strategies. Information regarding the current criminal justice status will assist in coordinating treatment and management issues with courts and community supervision staff.

In recent years, a number of key “criminal justice characteristics” have been associated with individuals with co-occurring disorders in the justice system. These individuals tend to be younger at the time of their first offense and often have a history of aggressive or violent behavior. They also tend to have histories of multiple incarcerations and an inability to function independently in criminal justice settings. (Drake et al., 1996; Lehman & Dixon, 1995; Mueser, Bennett, & Kushner, 1995).

Gathering the following information can assist in identification of co-occurring disorders, and in treatment, supervision, and case/treatment planning for individuals with co-occurring disorders:

- History of felony arrests (including age at first arrest, type of arrest)
- Juvenile arrest history

- Alcohol and drug-related offenses (e.g., DUI or DWI, drug possession or sales, reckless driving)
- Number of prior jail and prison admissions and duration of incarceration
- Disciplinary incidents in jail and prison
- History of probation and parole violations
- Current court orders requiring assessment and involvement in treatment, including the length of involvement in treatment (if specified)
- Duration of current criminal justice supervision parameters (e.g., pretrial release, probation, parole)
- Current supervision arrangements (e.g., supervising probation or parole officer, frequency of court or supervision appointments, and reporting requirements)
- Currently mandated consequences for noncompliance with treatment guidelines

Drug Testing

There is a long-recognized relationship between chronic drug use and crime (Banks & Gottfredson, 2003; Inciardi, Martin, Butzin, Hooper, & Harrison, 1997). National surveys within the Arrestee Drug Abuse Monitoring (ADAM) program indicate that 64 percent of individuals charged with a criminal offense test positive for drug use at their initial booking upon arrest (National Institute of Justice [NIJ], 2003). Heavier drug users demonstrate more frequent and more severe criminal behavior that fluctuates with their drug use (Anglin et al., 1999). Decreasing drug use among justice-involved individuals through treatment and monitoring can ultimately reduce the frequency of crimes (particularly violent crimes) committed by this population. Drug testing is often used to identify and monitor drug use, abstinence, relapse, and overall treatment progress in the criminal justice system because of the limitations of self-report data (Bureau of Justice Assistance, 1999). Drug testing is preferred over other means of detecting use, such as self-report or observation of symptoms, because it increases the likelihood of detection and reduces the lag time between relapse and detection (Harrell & Kleiman, 2001).

Drug testing is conducted at all stages of the criminal justice system, including at arrest; before trial; and during incarceration, probation, and parole (Robinson & Jones, 2000; Timrots, 1992). Drug testing can inform judges whether conditions regarding drug use should be included in bail setting and sentencing. It can be used to ensure that an individual is meeting such requirements; for example, by providing information about abstinence during the probation and parole period. It is particularly important in drug courts, mental health courts, and in other diversion programs that provide supervised treatment and case management services in lieu of prosecution or incarceration (Marlowe, 2003). For example, within drug courts, routine monitoring of drug use is often linked to sanctions that are established in advance and that escalate. Examples of sanctions include

verbal reprimands by the judge, writing assignments, community service, and increasing intervals of detention.

When used in combination with treatment, routine drug testing can encourage treatment retention, compliance, and program completion. Positive drug tests, failure to submit to drug testing, or adulterated samples should lead to routine notification of judges, supervision officers, and others who provide oversight of the individual within the criminal justice system. Refusal to submit to drug testing and tainted samples should be regarded as positive test results.

Research examining the effectiveness of drug testing and supervision in reducing relapse, rearrest rates, failure to appear in court, and unsuccessful termination from probation and parole has demonstrated mixed results (Banks & Gottfredson, 2003; Gottfredson, Najaka, Kearley, & Rocha, 2006; Harrell & Kleiman, 2001). For example, when assessing whether pretrial drug testing reduced individual misconduct during pretrial release, drug testing was related to lower rearrest rates but not lower failure-to-appear rates at one site, and lower failure-to-appear rates but not lower rearrest rates at another site (Rhodes, Hyatt, & Scheiman, 1996). Inconsistency in procedures has been cited as a possible cause for these differences because programs often vary in the likelihood that an individual will be drug tested upon arrest, referred to the appropriate monitoring or treatment program, and that sanctions will be consistently enforced when the predetermined conditions are not met (Visher, 1992). These results highlight the importance of following standard procedures and enforcing decisions regarding penalties.

Drug testing is used differently and has different legal implications based on the stage of criminal justice processing at which it is used (Harrell & Kleiman, 2001). When drug testing is performed at the pretrial stage, it typically cannot be used as evidence or considered in case outcomes, unless the arrestee enters a pre-plea diversion program. Under these conditions, prosecution is deferred pending successful completion of a drug treatment or intervention program. After a guilty plea and before sentencing, drug testing is frequently used in drug court and similar court-based diversion programs, usually in conjunction with treatment and sanctions. Individuals unable to remain abstinent or to otherwise abide by program requirements and guidelines in diversionary or post-sentence treatment settings are often sentenced and processed through traditional criminal justice channels.

All justice-involved individuals with co-occurring disorders, including those in jail and prison, should receive regular drug testing. More frequent drug testing should be provided for individuals who are at high risk for relapse, including persons with difficulties in achieving sustained abstinence, those with a history of frequent hospitalization, persons with unstable housing arrangements, and those just released from custody or returning from community furloughs/visits. In general, drug testing should begin immediately after an arrest or other triggering event that brings the individual into contact with the justice system, and should be administered at random intervals during the course of treatment, supervision, and incarceration. Drug testing should be provided at least weekly, and optimally twice weekly, during the first few months of community treatment and supervision. The

frequency of drug testing may be tapered off as the individual demonstrates the ability to remain abstinent.

Drug testing can present some interesting challenges when working with justice-involved individuals who have co-occurring disorders. For example, among persons with mental disorders, drug testing can lead to distrust of treatment providers and reluctance to actively engage in treatment. It is important to carefully discuss drug testing expectations, parameters, and consequences, and to adhere consistently to drug testing guidelines and to reconfirm these on a regular basis. This approach enhances the perception that drug testing is a part of the overall treatment plan and is therefore a beneficial intervention.

Frequency of Drug Testing

Two types of testing schedules are typically used once it is determined that drug testing is appropriate for a particular individual (Robinson & Jones, 2000). Spot testing is usually performed if it is suspected that an individual is currently intoxicated and particularly if a certain incident or event occurs, such as a crime or accident. These tests are unscheduled and use methods that can be administered easily and inexpensively on site. The most accurate types of testing to determine current intoxication are either blood or saliva testing. A breathalyzer may also be useful in this instance, as well as examination for physical and behavioral signs of drug effects, such as cognitive or hand-eye performance testing.

Random drug testing allows programs to discourage use while minimizing the cost of consistent and frequent testing. Individuals do not know when they will be called in for testing, and as a result they are less likely to tamper with the drug testing process. Most often, participants are required to call in every morning to learn if they have to submit to a drug test that day. If they are given such notice, they have to report for drug testing within 10–12 hours. Random drug testing is the most controversial type of drug testing, but is the most effective at deterring use because the threat of detection is very high. Critics of this method, however, feel that random testing introduces a presumption of guilt and should not be admissible in court.

Regardless of the schedule of drug testing, any on-site testing should be sent to a lab for confirmation of a positive result to ensure the results are legally admissible. This is particularly important for alternative drug testing methods, such as hair, sweat, or saliva testing, which are less established procedures. Confirmatory lab testing is rarely performed, however, due to the expense of testing each individual twice. Despite this, it is important to have the capability of confirming drug testing, as it may become necessary to produce these results in court.

Types of Drug Testing

The various types of drug testing provide differing levels of accuracy and effectiveness and vary in their intrusiveness, but are generally quite reliable. Six types of drug testing are typically used in criminal justice settings: urine, blood, hair, saliva, sweat, and breath. Detailed information about each type of drug testing is included in Appendix A. Table 1 also compares key features, and

advantages and disadvantages of the different types of drug testing. Standard procedures used by most drug testing companies include the SAMSHA 5 (previously known as the NIDA 5), which provides testing for five commonly used illegal drugs whose detection was standardized by the National Institute on Drug Abuse (NIDA) because of their frequency of use (Clark & Henry, 2003). The SAMSHA 5 includes:

- cannabinoids (marijuana, hash)
- cocaine (cocaine, crack)
- amphetamines (amphetamines, methamphetamines, speed)
- opiates (heroin, opium, codeine, morphine)
- phencyclidine (PCP)

Standardization of drug testing procedures occurred while NIDA was responsible for overseeing the National Laboratory Certification Program (NLCP), which certifies all nationally recognized drug testing laboratories. This organization is now under the jurisdiction of the Substance Abuse and Mental Health Service Administration (SAMSHA), a division of the U.S. Department of Health and Human Services. These five categories of drugs, however, do not cover the full spectrum of drugs used in the U.S., so many certified drug testing laboratories

Sample	Invasiveness of Sample Collection	Detection Time	Cutoff Levels	Advantages	Disadvantages	Cost
Urine	Intrusion of privacy	Hours to days	Yes	High drug concentrations; established methodologies; quality control and certification	Cannot indicate blood levels; easy to adulterate	Low to moderate
Blood	Highly invasive	Hours to days	Variable limits of detection	Correlates with impairment	Limited sample availability; infectious agent	Medium to high
Hair	Noninvasive	Weeks to months	Variable limits of detection	Permits long-term detection of drug exposure; difficult to adulterate	Potential racial bias and external contamination	Moderate to high
Sweat	Noninvasive	Days to weeks	Screening cutoffs	Longer time frame for detection than urine; difficult to adulterate	High inter-individual differences in sweating	Moderate to high
Saliva	Noninvasive	Hours to days	Variable limits of detection	Results correlate with impairment; provides estimates of blood levels	Contamination from smoke; pH changes may alter sample	Moderate to high
Breath	Noninvasive	Hours	No, except for ethanol	Ethanol concentrations correlate with impairment	Very short time frame for detection; only detects volatile compounds	Low to moderate

Source: Robinson, J. J., & Jones, J. W. (2000). *Drug testing in a drug court environment: Common issues to address* (NCJ Publication 181103). Washington, DC.

offer expanded tests that also include barbiturates, benzodiazepines, ethanol (alcohol), methadone, methaqualone, and propoxyphene (Darvon).

Chain of Custody Process

To ensure that a drug test sample will be admissible in court, documented routines and procedures must be in place for collection, testing, and storage. In addition, laboratory tests should examine the likelihood of tampering or adulteration for each specimen. Specimens should be stored in a locked, temperature-controlled space and remain there until the possibility of a challenge or court hearing has passed. Records should be kept that document the chain of custody regarding who is responsible for oversight of the specimen at each point in the drug testing process, as well as the time and date that any particular function occurred. Functions of importance include the following (Robinson & Jones, 2000):

- The individual reporting for testing or check-in
- Sample collection
- Examination of the sample for adulteration
- Transportation to the laboratory
- Sample testing
- Follow-up tests
- Review of the results
- Recording of the results

Enhancing the Accuracy of Information in Screening and Assessment

There are numerous challenges in compiling accurate screening and assessment information for justice-involved individuals who have co-occurring disorders. Accuracy of information obtained during screening and assessment can be compromised by many factors:

- Inadequate staff training and poor familiarity with mental and substance use disorders
- Time constraints in conducting screening and assessment
- Previous clinicians who may have neglected to provide or provided poor quality screening and/or assessment for co-occurring disorders
- Incomplete, mislabeled, or misleading records
- The transparent nature of screening and assessment instruments may lead to dissimulation
- Offenders may anticipate negative consequences related to disclosure of mental health or substance abuse symptoms

- Symptoms may be feigned or exaggerated if an offender believes that this will lead to more favorable placement or disposition.

Another complicating factor is that individuals vary greatly in their expression of co-occurring disorders. Mental and substance use disorders have a waxing and waning course and may manifest differently at different points in time. Individuals with some mental disorders may be particularly vulnerable to substance use, even in relatively small amounts. Dependence symptoms may vary depending on the substance of abuse and the mental health diagnosis. The consequences of substance use among persons with co-occurring disorders may also be quite different than among other groups. The chronic nature of substance abuse makes it difficult to date the onset and duration of co-occurring disorders and periods of abstinence. Finally, cognitive impairment and other mental health symptoms may lead to inaccurate recall of information.

Symptom Interaction Between Co-Occurring Disorders

Screening and assessment of co-occurring mental and substance use disorders are often rendered more difficult by symptom interactions, including symptom mimicking, masking, precipitation, and exacerbation. Understanding these interactions is important in identifying issues that may contribute to substance use relapse, recurrence of mental health symptoms, or both. Ongoing observation of symptom interaction is often needed to provide diagnostic discrimination between various different mental and substance use disorders.

Several important types of symptom interaction should be noted:

- Use of alcohol and drugs can create mental health symptoms
- Alcohol and drug use may precipitate or bring about the emergence of some mental disorders
- Mental disorders can precipitate substance use disorders (most individuals with co-occurring disorders report that mental health symptoms preceded substance abuse)
- Mental health symptoms may be worsened by alcohol or drug use
- Mental health symptoms or disorders are sometimes mimicked by the effects of alcohol and drug use (e.g., cocaine intoxication can cause auditory or visual hallucinations)
- Alcohol and drug use may mask or hide mental health symptoms or disorders (e.g., alcohol intoxication may mask underlying symptoms of depression)

The considerable symptom interaction between co-occurring disorders leads to difficulties in interpreting whether symptoms are related to mental illness or substance abuse. Justice-involved individuals with co-occurring disorders may have difficulty providing an accurate symptom history due to cognitive impairment, mental health symptoms, confusion regarding the effects of their substance use, and to the chronic nature of their alcohol and drug use. Furthermore, individuals may anticipate negative consequences related to

self-disclosure of mental health or substance abuse symptoms. Alternatively, symptoms may be feigned or exaggerated if an individual believes that this will lead to more favorable placement or disposition. For example, individuals who are incarcerated may falsely report mental health symptoms to receive medication, housing in medical units, or contact with medical staff.

Self-Report Information

Screening and assessment of mental and substance use disorders in the justice system is usually based on self-report information. This information has been found to have good reliability and specificity, but does not always help to identify the full range of symptoms of co-occurring disorders (Drake, Rosenberg, & Mueser 1996). In general, self-report information is more accurate in detecting alcohol use than drug use (Stone, Greenstein, Gamble, & McClellan, 1993). Individuals in the criminal justice system, particularly those with mental health problems, are often more willing to acknowledge alcohol use rather than illicit drug use and are generally better able to report frequency of use than consequences of use. However, given negative consequences associated with detection of either alcohol or drug use, it is widely accepted that self-report information should be supplemented by collateral information and drug testing.

Self-report information obtained from justice-involved individuals has been found to be valid and useful for treatment planning (Landry, Brochu, & Bergeron, 2003), although self-reports of recent substance abuse are not always accurate (De Jong & Wish, 2000; Gray & Wish, 1999; Lu, Taylor, & Riley, 2001; Magura & Kang, 1997; Yacoubian, VanderWall, Johnson, Urbach, & Peters, 2003). Harrison (1997) found that only half of the arrestees who tested positive for drug use reported recent use. Self-reported substance abuse by justice-involved individuals has been found to be less accurate than that of clients in treatment and patients interviewed in emergency rooms (Magura & Kang, 1997). In post-adjudicatory settings, self-reported criminal history information tends to be more comprehensive than that found in archival records and is quite consistent with archival records for demographic information.

Validity of an individual's self-report data is influenced by the type of substances used (Mieczkowski, 1990). In general, individuals are least likely to admit to cocaine use, followed by amphetamines, opiates, and marijuana. In a comparison of self-reports to hair test results, Knight, Hiller, Simpson, and Broome (1998) found that cocaine use was underreported. Accuracy of self-reported substance use may diminish according to the stigma and perceived consequences related to the substance use. For example, individuals are more likely to admit to marijuana use rather than crack cocaine or heroin use (Lu et al., 2001).

A number of factors may affect the accuracy of self-report information, including recent substance abuse, co-occurring psychiatric problems, physical and cognitive impairment, fears related to lack of confidentiality, perceived consequences of disclosure, and credibility of the interviewer. Recommendations for maximizing validity of self-report data include providing clear instructions regarding the

screening and assessment task, engaging the person in the process, establishing rapport, and carefully explaining the scope of and limits to confidentiality (Babor, Stephens, & Marlatt, 1987; RachBeisel, Scott, & Dixon, 1999). Screening for recent substance use and current psychological functioning is also important to assess the likelihood of obtaining accurate self-report data. Often, specifying a time frame for the respondent rather than asking about “typical” or “usual” substance use patterns will increase the reliability of self-report information (Del Boca & Darkes, 2003).

Use of Collateral Information

Whenever possible, interview and test results should be supplemented by collateral information obtained from family members, friends, housemates, and other informants who have close contact with the individual (Drake et al., 1993). In addition, observations of symptoms and behaviors by arresting officers, booking officers, correctional officers, probation officers, treatment staff, case managers, and other staff can provide important collateral information for screening and assessment. Non-clinical staff working with the individual may be particularly helpful in describing withdrawal symptoms or significant psychosocial problems, such as self-destructive behaviors or difficulties interacting with others.

Observation by family members, friends, or direct care staff may also provide important collateral information that is as accurate as that obtained from interviews or standardized instruments (Comtois, Ries, & Armstrong, 1994). For example, in community settings, the combination of ongoing observation, collateral reports, and interviews has produced the most accurate information regarding current alcohol use among individuals with schizophrenia (Drake et al., 1990). Substance-abusing associates have been found to provide more accurate information than non-using family members regarding drug and alcohol use (Kosten & Kleber, 1988). Unfortunately, individuals with co-occurring disorders often have constricted social networks and live in isolated settings, thus limiting the use of collateral informants (Drake et al., 1993).

Use of an Extended Assessment Period

Many individuals who are screened or assessed for co-occurring disorders in court or community corrections settings or in jail may be under the influence of alcohol or drugs. These individuals may need to be provided a period of detoxification, as recent substance use may reduce the accuracy of information gathered. Although most individuals in prison will have been detoxified at the time of admission, residual effects of drug use may initially cloud the symptom picture.

Under conditions of uncertainty regarding recent substance use, an extended assessment period or “baseline” is recommended to help determine whether mental health symptoms will resolve, persist, or worsen. While guidelines provided by the DSM-IV-TR (APA, 2000) indicate that individuals should be abstinent for approximately four weeks before an accurate mental health diagnosis can be provided, the precise length of the extended baseline for screening and assessment

should be determined by the severity of the symptoms and the general health status. The utility of screening and assessment may be limited among justice-involved individuals whose symptoms are in temporary remission, so it may be more relevant to examine the history and level of psychosocial functioning over the past year.

During the extended assessment period, addressing acute symptoms (e.g., suicidal behavior) should take precedence over the development of a diagnosis. With some exceptions, psychotropic medication can be provided to treat acute mental health symptoms among individuals with co-occurring disorders who are suspected of recent drug or alcohol abuse. Given the variability of symptoms over time among individuals with co-occurring disorders, early diagnostic indicators should be continually reexamined by staff who are knowledgeable in patterns of symptom interaction.

Several steps are often taken during an extended assessment period to determine the presence, scope, and severity of co-occurring disorders:

- Assess the significance of the substance use disorder
 - ▶ Obtain a longitudinal history of mental health and substance abuse symptom onset
 - ▶ Analyze whether mental health symptoms occur only in the context of substance use
 - ▶ Determine whether sustained abstinence leads to rapid and full remission of mental health symptoms
- Determine the length of the current abstinence
 - ▶ If four weeks of abstinence has not been achieved, diagnosis may be delayed until this has been achieved
- Reassess mental health symptoms at the end of four weeks of abstinence
- If mental health symptoms resolve, traditional substance abuse treatment services may be appropriate; if not, the individual may require specialized mental health or co-occurring disorders treatment services
- Periodically reevaluate mental health symptoms and appropriateness of treatment placement

Other Strategies to Enhance the Accuracy of Screening and Assessment Information

- Use archival records to examine the onset, course, diagnoses, and response to treatment of mental and substance use disorders, and other relevant history
- Wait to use self-report instruments until mental health symptoms have stabilized and it is determined that an individual is not in withdrawal or intoxicated
- Provide repeated screening and assessment

Given the variability of symptoms over time among individuals with co-occurring disorders, early diagnostic indicators should be continually reexamined by staff who are knowledgeable in patterns of symptom interaction.

- Provide a supportive interview setting to promote disclosure of sensitive clinical information
- Compile self-report information in a nonjudgmental manner and in a relaxing setting. The interview should be prefaced by a clear articulation of the limits of confidentiality
- Examine non-intrusive information first (e.g., background information). After rapport has been established, proceed to address substance abuse issues, and gather mental health information last, as this information tends to be the most stigmatizing and difficult to disclose
- Use motivational interviewing techniques to enhance compliance and accurate self-reporting. Key techniques include expressing empathy, developing discrepancy between a person's stated goals and current behaviors, avoiding arguing, "rolling" with resistance by offering new ideas and finding ways to encourage behavior change, and supporting self-efficacy and self-confidence
- Use a structured interview approach that may include: (1) screening for consequences of substance use, (2) a lifetime history related to co-occurring disorders, (3) a calendar method to document patterns of substance use in recent months (e.g., use of timeline follow-back procedure), and (4) assessment of current and past substance use
- Review the psychometric properties of available screening and assessment instruments. Research indicates that these instruments have different levels of specificity, sensitivity, and overall accuracy in justice settings, and may also vary in their effectiveness with different ethnic and racial groups

Special Clinical Issues in Screening and Assessment for Co-Occurring Disorders

Evaluating Suicide Risk

More than 90 percent of the cases of people who commit suicide in the general U.S. population indicate a history of mental disorder, particularly depression and substance use (U.S. Department of Health & Human Services, 2003). Within criminal justice settings, suicide attempts are five times more likely among persons who have mental disorders (Goss et al., 2002), perhaps due to increased stress related to incarceration and community supervision, and also to a disproportionate number of individuals with mental and substance use disorders. Ongoing suicide screening is particularly important for individuals with co-occurring disorders as the combination of serious mental illness, such as severe depression, bipolar disorder, and schizophrenia, and substance use or withdrawal significantly elevates risk for suicide.

Given the high proportion of persons with co-occurring disorders in the criminal justice system, it is essential that suicide screening be conducted in a comprehensive and systematic manner, and that procedures are effectively implemented to compile and process this information. Screening should be conducted at the time of admission or transfer to new institutions, and at sequential stages during justice system processing. A number of well-validated suicide screening instruments are included in Appendix B.

Screening for suicide risk in the justice system is important for both legal and ethical/professional reasons. Much of the litigation aimed at correctional mental health services has addressed inadequate suicide screening and prevention procedures. Most suicidal behavior is preventable through implementation of comprehensive screening, triage, supervision procedures, and changes to the immediate residential environment (e.g., jail/prison cell). The goals of screening for suicide risk are to identify risk and protective factors and to identify and implement a plan of preventive action as needed. It is useful to gather suicide screening information from multiple sources, including from interviews with the offender, objective/self-report instruments, collateral reports from those who have had ongoing contact with the offender, and medical/treatment records and other archival information. Direct questioning of the offender is needed to examine suicidal intentions, lethality of potential behavior, probability of the behavior (e.g., specific plans), and means available to accomplish the suicide.

The following suicide risk factors can be reviewed to help identify persons who need more comprehensive assessment, close supervision, and additional services:

- Age (escalation of risk with age, particularly over 45; however, rates among young people have been increasing)

- Gender (higher risk of successful suicides for males, higher risk of suicide attempts for females)
- Race/ethnicity (highest risk for suicide among Caucasians)
- Previous or current psychiatric diagnosis
- Current evidence of depression
- Substance use
- Poor problem solving and/or impaired coping skills
- Social isolation and limited social support
- Previous suicide attempt
- Family history of suicidal behavior
- History of abuse, family violence, or punitive parenting
- History of prostitution
- Current and identifiable stressors, with a particular focus on losses (e.g., homelessness, joblessness, loss of a loved one)

(Centers for Disease Control, 2008; National Institute of Mental Health, 2008)

Brief screening for suicide risk should address the following areas:

- Current mental health symptoms
- Current suicidal thoughts
- Previous suicide attempts and their seriousness
- Whether suicide attempts were intended or accidental
- The relationship between suicidal behavior and mental health symptoms

A thorough assessment of suicide risk/potential should include an interview to review thoughts, behaviors, and plans related to suicide. In addition to the screening items described previously, the following areas should be reviewed during the assessment interview:

- Thoughts related to suicide (i.e., frequency, intensity, duration, specificity), distinguishing between passive and active suicidal thoughts
- Current plans (specificity, method, time/date)
- Lethality of suicidal plans and availability of potential instruments (e.g., drugs, weapons)
- Preparatory behavior
- Self-control
- Reasons for living

In summary, suicide screening should be provided for all individuals entering the criminal justice system. Screening should be conducted at the time of admission or transfer to new institutions, and at sequential stages during justice system processing (e.g., arrest, booking, pretrial diversion, probation, parole). While

suicide screening is important for all individuals in the criminal justice system, it is particularly important for those with mental disorders and co-occurring disorders. At highest risk are those who have severe depression, schizophrenia, or individuals who are suffering from stimulant withdrawal. All suicidal behavior (including threats and attempts) should be taken seriously and assessed promptly to determine the type of immediate intervention needed.

Trauma and Posttraumatic Stress Disorder (PTSD)

The past two decades have seen a significant increase in the number of women entering the criminal justice system (Greenfeld & Snell, 1999). The rates of mental disorders among justice-involved women are higher than among the general population, and are also higher in comparison to justice-involved men (Teplin et al., 1996; Veysey, Steadman, Morrissey, & Johnsen, 1997). As many as 78 percent of justice-involved women report a history of childhood or adult physical, sexual, or emotional abuse (Ditton, 1999). There are also high rates of posttraumatic stress disorder (PTSD) among both men and women in the criminal justice system.

Given the prevalence of trauma in individuals who are justice involved, trauma screening and assessment is essential in jails and prisons. In many criminal justice settings, trauma-related issues are not addressed due to concerns that staff members are not adequately trained to provide treatment services or to fears that these issues will disrupt treatment activities. In fact, failure to address trauma issues will often undermine engagement in treatment and may result in commonly experienced trauma-related symptoms such as depression, agitation, and detachment mistakenly being attributed to other causes. Other consequences of not screening for trauma include inappropriate treatment referral, dropout from treatment, and premature termination of treatment (Hills, Siegfried, & Ickowitz, 2004). Moreover, without screening for trauma and abuse it is unlikely that specialized treatment interventions will be provided.

Substance use or withdrawal symptoms (e.g., increased anxiety, difficulty sleeping, and increased intrusion of traumatic thoughts) can minimize, mask, or mimic symptoms of trauma and PTSD, and screening and assessment of these issues should therefore be conducted or supplemented during periods of abstinence. PTSD is optimally diagnosed after offenders have completed acute stages of withdrawal.

Several specific factors should be considered in screening and assessment for co-occurring disorders for women who are justice involved. Most of these women are primary caretakers of dependent children and may experience significant anxiety, guilt, low self-esteem, and lack of self-efficacy related to their inability to care for children during periods of incarceration (Greenfeld & Snell, 1999; Sacks, 2004). Further, justice-involved women with trauma histories often have significant medical problems, such as HIV/AIDS, other sexually transmitted diseases, or hepatitis that should be identified during screening and assessment. Given that two-thirds of incarcerated women are from cultural or ethnic minorities (Greenfeld

Given the prevalence of trauma in individuals who are justice involved, trauma screening and assessment is essential in jails and prisons.

& Snell, 1999), screening and assessment approaches should be selected that are culturally valid and sensitive.

A significant amount of research on trauma and PTSD has been conducted in recent years, and a number of specialized screening and assessment instruments have been developed that may prove useful in criminal justice settings. A summary of these instruments is provided in Appendix C. Similar work is underway with regard to issues related to trauma in men who are involved with the justice system.

Motivation and Readiness for Treatment

As with behavioral health interventions in general, outcomes related to treatment of co-occurring disorders are highly dependent on personal relationships established with service providers during screening and assessment and during early stages of treatment (CSAT, 2005a, 2006). Individuals with co-occurring disorders generally do not have a history of successful participation in treatment services nor of vocational and educational achievement, and may have little optimism for successful outcomes within justice treatment settings (Chandler et al., 2004). Moreover, they are often demoralized by financial, service-related, or other barriers, or by their own limitations that affect employment, interpersonal relationships, and emotional well-being.

For these reasons, assessment and treatment planning for co-occurring disorders in the justice system should address an individual's motivation and readiness for treatment. Motivation has been found to be an important predictor of treatment compliance, dropout, and outcome. In justice settings, motivation to participate in treatment is affected by perceived sanctions and incentives (e.g., court orders to complete treatment, probation revocation, "good time" for involvement in correctional treatment). Motivation increases when continued substance abuse threatens current housing, involvement in mental health treatment, vocational rehabilitation, family, marriage, or when continued substance abuse will lead to incarceration in jail (Ziedones & Fisher, 1994). Therefore, motivation for treatment can be increased or decreased by altering any of a variety of criminal justice system incentives and sanctions. Motivation for treatment and engagement in treatment can also be augmented by providing a welcoming attitude during the screening and assessment process, by showing empathy and respect for justice-involved individuals who are beginning the difficult process of treatment and recovery, and by maintaining optimism for individuals' ability to achieve behavior change and recovery (CSAT, 2006).

Motivation for treatment is expected to change over time, and justice-involved individuals often cycle through several predictable "stages of change" during the treatment and recovery process. Individuals in early stages of change have little awareness of substance abuse (or other) problems and often do not intend to change their behavior. Due to the chronic relapsing nature of recovery from addiction and mental disorder, movement through stages of change is not a linear process. For example, individuals frequently return to previous stages of change

... outcomes related to treatment of co-occurring disorders are highly dependent on personal relationships established with service providers during screening and assessment and during early stages of treatment (CSAT, 2005a, 2006).

before achieving sustained abstinence and recovery. An early form of the stages-of-change model (Prochaska & DiClemente, 1992) included the following stages:

- Precontemplation (unawareness)
- Contemplation (awareness)
- Preparation (decision point)
- Action (active change behaviors)
- Maintenance (ongoing preventive behaviors)

A similar stages-of-change model was developed to better understand motivation and readiness among persons with co-occurring disorders (Osher & Kofoed, 1989) and has been used to develop “stage-specific” treatment services, and to structure the sequence of treatment approaches in some settings. This approach is premised on the assumption that stage-specific interventions will enhance treatment adherence and outcomes. For example, offenders in early stages of change are unlikely to respond well to treatment that does not address ambivalence and resistance related to behavior change. Similarly, offenders in later stages of change who are placed in services that focus primarily on early recovery issues may drop out from treatment.

A major underlying principle of stage-specific treatment is that assessment of motivation and readiness should be used to match individuals to treatment services. The Substance Abuse Treatment Scale (SATS; McHugo, Drake, Burton, & Ackerson, 1995) is a rating scale that was developed to describe a person’s level of engagement in treatment. This scale has been used to help match individuals to treatment and to develop appropriate services for the following “stages of change”:

- Pre-Engagement
- Engagement
- Early Persuasion
- Late Persuasion
- Early Active Treatment
- Late Active Treatment
- Relapse Prevention
- Remission or Recovery

A number of screening instruments have been developed for screening and assessment of motivation and readiness for treatment, and a detailed critical review of these instruments is provided in Appendix D.

Cultural Issues Related to Screening and Assessment

Given the large proportion of cultural and ethnic minorities in the criminal justice system, screening and assessment approaches for co-occurring disorders should consider influences of ethnicity, social class, gender, sexual orientation,

race, disability status, socioeconomic level, and religious and spiritual affiliation (Hienz, Preto, McGoldrick, Almeida, & Weltman, 1999). For example, having experienced discrimination and racism may influence the expression of mental health symptoms. Individuals who have experienced shame and stigma related to discrimination may expect treatment staff to judge them negatively, and this may affect treatment outcome. Experiences of poverty, discrimination, and involvement with the criminal justice system may also increase vulnerability and exposure to chronic stress (Goldstein, 1986) and shape the underlying belief systems of individuals regarding treatment and rehabilitation. Mental health symptoms may be expressed quite differently by individuals of different cultural or ethnic backgrounds and may be misinterpreted if cultural norms are not well understood or if there is insufficient follow-up to assess the full meaning of unusual self-reported symptoms. Treatment staff should actively explore expectations and beliefs that may have been shaped by experiences of racism and discrimination, and should be cautious in determining how these affect the process of screening and assessment.

Some individuals may not be fully candid during screening and assessment interviews because their cultural affiliation does not condone self-disclosure of problems to those outside the immediate family. Self-disclosure may also be inhibited among individuals who have experienced discrimination from people who share the culture or ethnicity of the staff person conducting the screening or assessment interview. Language barriers can also influence the outcome of screening and assessment interviews. Alternative strategies should be explored for individuals who do not read or comprehend English effectively. Whenever possible, screening and assessment should be conducted in the individual's language of choice and by staff from a similar cultural background. Many screening instruments are available in Spanish or other languages, and bilingual staff can provide assistance in conducting screening and assessment interviews. Maintaining a staff of diverse ethnic or cultural backgrounds is highly important to promoting engagement in screening, assessment, and other treatment activities.

Screening Instruments for Co-Occurring Disorders

Whenever feasible, standardized screening instruments should be used to identify co-occurring disorders in the justice system. This will promote a shared understanding of co-occurring problems and needed treatment interventions. Given the absence of specialized screening instruments that address the multiple relevant components of co-occurring disorders, several instruments (e.g., mental health, substance abuse, trauma/PTSD, motivation) are often combined to provide a comprehensive screening. These screening instruments are sometimes included in a battery to provide focused information regarding acute mental health and substance abuse needs, and suitability for placement in various settings. Screening

Maintaining a staff of diverse ethnic or cultural backgrounds is highly important to promoting engagement in screening, assessment, and other treatment activities.

instruments for co-occurring disorders should be administered concurrently with drug testing and examination of collateral information.

Key Issues in Selecting Screening Instruments

There are several key issues in selecting screening instruments:

- **Reliability.** Reliability of screening instruments can be difficult to achieve because individuals with co-occurring disorders often present a changing diagnostic picture due to the influence of intoxication and withdrawal.
- **Validity.** Many standardized mental health and substance abuse instruments are not sensitive to or specific in identifying co-occurring disorders. Sensitivity refers to an ability to identify individuals with mental health or substance abuse problems, or both, while specificity refers to an ability to identify individuals without such problems.
- **Use in Criminal Justice Settings.** Not all mental health or substance abuse instruments have been validated for use within criminal justice settings, although a growing number of studies have been conducted in these settings.

Comparing Mental Health Screening Instruments

As part of the National Institute on Drug Abuse (NIDA) Criminal Justice–Drug Abuse Treatment Studies (CJ-DATS) network, a multisite study was conducted to identify a reliable and valid brief instrument to screen justice-involved individuals for co-occurring disorders. Criteria established for the screening instruments were that they be brief, have good psychometric properties, not require specialized training, and be available in the public domain. Key steps in this process have included: (1) identification of potential co-occurring disorders screening instruments, (2) review of instruments and screening approach by stakeholders and national experts, (3) instrument selection and modification, (4) pilot testing to determine the psychometric properties (i.e., reliability, validity) of the instruments and optimal cutoff scores, and (5) a validation study to determine the effectiveness of a particular instrument or set of instruments (Sacks et al., in press).

Following an initial review of instruments, the CJ-DATS study identified the Texas Christian University Drug Screen (TCUDS) as the most effective available substance abuse screen. A study was then conducted to identify the most effective mental health screening instrument for use with individuals, to be coupled with the TCUDS to form a co-occurring disorders screening instrument. The Global Appraisal of Needs–Short Screener (GAIN-SS), the Mental Health Screening Form-III, and the MINI International Neuropsychiatric Interview–Modified (MINI) were selected for inclusion in the study, and results of these screens were compared to the SCID diagnostic interview, which served as the criterion measure. The effectiveness of these mental health screening instruments was examined by administering the instruments and the criterion measure to individuals enrolled in prison-based substance abuse treatment services.

The MHSF-III and the GAIN-SS were found to have somewhat higher overall accuracy than the MINI, and significantly higher sensitivity than the MINI in detecting any mental disorder, including all Axis I and II disorders, among individuals (Sacks et al., in press). Each mental health screening instrument performed adequately in detecting severe mental disorder (i.e., major depression, schizophrenia, bipolar disorder). The screening instruments were found to have somewhat higher overall accuracy among male offenders.

Two very brief mental health screening instruments were also derived from the study and were identified as potentially promising for use with justice-involved individuals (Sacks et al., in press). These included a six-item screen for “any mental disorder,” comprising items from the GAIN, the MINI, and the MHSF-III; and a three-item screen for “severe mental disorder,” composed of questions from the MHSF-III and the MINI. These brief screens performed about as well as the MHSF-III, the GAIN-SS, and the MINI in detecting mental disorders in the CJ-DATS study. Additional research will be needed to validate the utility of these brief screening instruments.

Appendix E, F, and G provide additional information regarding recommended mental health screening instruments for use in detecting co-occurring disorders, and Appendix G provides a detailed critical review of available screening instruments for mental disorders.

Comparing Substance Use Screening Instruments

In a study examining the comparative validity of substance abuse screening instruments in prisons, three instruments were found to be the most effective in identifying individuals with substance dependence problems:

- Alcohol Dependence Scale and Addiction Severity Index–Drug Use section (this was a combined instrument, consisting of the ADS and the ASI-Drug Use section)
- Simple Screening Instrument (SSI)
- Texas Christian University Drug Dependence Screen (TCUDS)

(Peters et al., 2000)

These instruments outperformed several other screens, including the Michigan Alcoholism Screening Test (MAST)–Short version, the ASI–Alcohol Use section, the Drug Abuse Screening Test (DAST-20), and the Substance Abuse Subtle Screening Inventory (SASSI-2) on key measures of positive predictive value, sensitivity, and overall accuracy.

Appendix E, F, and H provide additional information regarding recommended substance abuse screening instruments for use in detecting co-occurring disorders, and Appendix H provides a detailed critical review of available screening instruments for substance use disorders.

Recommended Instruments for Screening of Co-Occurring Disorders

Based on comparisons of mental health screening instruments, comparisons of substance abuse screening instruments, and a critical evaluation of mental health, substance abuse, and specialized co-occurring disorders screening instruments provided in Appendix F, G, and H, the following combination of instruments is recommended for screening of co-occurring disorders in justice settings:

1. Either the Global Appraisal of Individual Needs (GAIN-SS) or the Mental Health Screening Form-III (MHSF-III) to address mental health symptoms.
(and)
2. Either the Simple Screening Instrument (SSI) or the Texas Christian University Drug Screen-II (TCUDS-II) to address substance abuse symptoms.

This combined screening would require approximately 15–25 minutes to administer and score. Screening for suicide risk and for trauma and abuse should also be conducted. Screening for motivation and readiness for treatment may be provided if time permits.

Assessment Strategies and Instruments for Co-Occurring Disorders

Clinical assessment differs significantly from “classification” conducted in jails and prisons, which involves examination of risk and other factors relevant to individual placement, housing, work assignment, and involvement in program services. Assessment of co-occurring disorders is usually accomplished after completion of screening and referral to treatment services. If symptoms of both mental and substance use disorders are detected during screening, the assessment should examine potential interactive effects of these disorders.

Assessment provides the basis for development of an individualized treatment plan and a community reentry/follow-up plan for justice-involved individuals who have co-occurring disorders. Key elements of assessment of co-occurring disorders include examination of skill deficits, the need for psychotropic medications, and types of treatment and ancillary services needed. As noted previously, sufficient time should be provided prior to assessment to ensure that an individual is detoxified and that mental health symptoms exhibited are unrelated to withdrawal from substance use. Standardized assessment methods should be implemented at an early stage and throughout involvement in the criminal justice system.

Assessment provides the basis for development of an individualized treatment plan and a community reentry/follow-up plan for justice-involved individuals who have co-occurring disorders.

Key Information to Include in Assessment of Co-Occurring Disorders

The following types of information should be examined in assessment of co-occurring disorders in the criminal justice system:

- Criminal justice history and status
- Mental health history, current symptoms, and level of functioning
- Substance use history, current symptoms, and level of functioning
- Chronological history of the interaction between mental and substance use disorders
- Family history of mental and substance use disorders (including birth complications and in utero substance exposure)
- Medical status
- Social/family relationships
- Interpersonal coping strategies, problem solving abilities, and communication skills
- Employment/vocational status
- Educational history and status
- Literacy, IQ, and developmental disabilities
- Treatment history and response to/compliance with treatment (including psychopharmacological interventions)
- Prior experience with peer support groups
- Cognitive appraisal of treatment and recovery, including motivation and readiness for treatment, self-efficacy, and expectancies related to substance use and use of medication
- Offender's understanding of treatment needs
- Resources and limitations affecting the offender's ability to participate in treatment (e.g., transportation problems, homelessness, child care needs)

Areas to Obtain More Detailed Assessment Information

- Symptoms of co-occurring disorders
 - ▶ Specific mental health and substance abuse symptoms, and severity of the related disorders
 - ▶ Whether symptoms are acute or chronic, and how long the individual has had the symptoms and related disorders
- Substance use history and recent patterns of use
 - ▶ Substance abuse information should include the primary drugs of abuse; misuse of prescription drugs; reasons for substance use; context of substance use; periods of abstinence and how they were attained; treatment history; age of onset; frequency, amount, and duration of use; and patterns of high and low use

- Mental health history and current psychological functioning
 - ▶ Mental health information should include current and past symptoms (e.g., suicidality, depression, anxiety, psychosis, paranoia, stress, self-image, inattentiveness, impulsivity, hyperactivity), treatment history, and patterns of denial and manipulation
- History of interaction between the co-occurring disorders
 - ▶ It is particularly important to examine the chronological history of the two disorders, including periods before the onset of drug and alcohol use, and during periods of abstinence (including enforced abstinence while in jail or prison). In some settings, substance use and mental health history information is collected separately. This tends to hinder an understanding of the effects of drugs and alcohol on mental health symptoms and the extent to which mental disorders exist independently from substance abuse. Unfortunately, few assessment instruments examine the chronological relationship between co-occurring disorders and the intertwined nature of these disorders
- Medical/health care history and status
 - ▶ Key areas to examine include history of injury and trauma, chronic disease, physical disabilities, substance toxicity and withdrawal, impaired cognition, neurological symptoms, and prior use of psychiatric medication. If a history of Attention-Deficit/Hyperactivity Disorder (AD/HD) is suspected, assessment should examine attention and concentration difficulties, hyperactivity and impulsivity, and the developmental history of childhood AD/HD symptoms
- Criminal justice history and status
 - ▶ The complete criminal history should be reviewed, in addition to current criminal justice status
- Cultural and linguistic needs
 - ▶ Cultural beliefs about mental and substance use disorders, treatment services, and the role of treatment professionals
 - ▶ Abilities to adapt to the treatment culture and to deal with conflict in these settings
 - ▶ Reading and writing skills
 - ▶ Barriers to providing cultural and linguistic services
- Individual strengths and environmental supports
 - ▶ Ability to manage mental and substance use disorders
 - ▶ Social supports (e.g., peers, family)
 - ▶ Interests and skills
 - ▶ Expectancies related to treatment
 - ▶ Motivation for change, and salient incentives and goals for the individual

- ▶ Vocational and educational accomplishments
- Social relationships
 - ▶ Assessment should examine social interactions and lifestyle, effects of peer pressure to use drugs and alcohol, family history, and evidence of current support systems. The stability of the home and social environment should also be assessed, including violence in the home and effects of the home/other relevant social environments (e.g., work, school) on abstinence from substance use
- Other psychosocial areas of interest
 - ▶ Housing/living arrangements
 - ▶ Vocational/employment history, vocational skills, and training needs
 - ▶ Financial support and eligibility for entitlements

Diagnosis of Co-Occurring Disorders

Another important aspect of the assessment process is the development of formal diagnoses of mental and substance use disorders. In addition to providing descriptive and prognostic information, diagnostic classification (e.g., through use of the DSM-IV-TR; American Psychiatric Association, 2000) with individuals who have co-occurring disorders assists in identifying key areas to be addressed during psychosocial assessment and in developing an individualized treatment plan (Drake & Mercer-McFadden, 1995). Diagnostic classification instruments examine presenting symptoms of mental and substance use disorders within the framework of the DSM-IV-TR. Instruments may be fully structured (e.g., the DIS-IV), thereby requiring minimal training to administer; or may be semi-structured (e.g., SCID-IV), requiring application of clinical judgment. Appendix M provides a detailed review and critical analysis of available instruments for diagnosis of co-occurring disorders.

The following considerations should be made in selecting and administering diagnostic instruments:

- Structured interview instruments (e.g., DIS-IV, SCID-IV) are recommended
- Diagnostic instruments should have good reliability and validity
- Ongoing observation of mental health and substance abuse symptoms, use of collateral sources of information, and drug testing should supplement structured diagnostic interviews
- Diagnoses of individuals with co-occurring disorders should be reviewed periodically, given that key symptoms often change over time (e.g., following periods of prolonged abstinence)

Recommended Instruments for Assessment of Co-Occurring Disorders

Few instruments have been validated for use in assessing individuals with co-occurring disorders. Moreover, few studies have attempted to validate assessment

instruments in criminal justice settings. Given the heterogeneity of symptoms presented by individuals with co-occurring disorders, it is unlikely that a single instrument will be developed to assess the full range of co-occurring problems, or to distinguish individuals with co-occurring disorders from those who have only mental or substance use disorders (Osher & Kofoed, 1989).

An integrated approach for assessment of co-occurring disorders in the justice system should include a comprehensive review of mental and substance use disorders and an examination of criminal justice history and status. An assessment should be conducted of each disorder in addition to an assessment of the interactive effects of the disorders. Several previously described screening instruments are often used as part of an assessment battery to examine specialized areas (e.g., diagnostic symptoms of alcohol and/or drug abuse) related to co-occurring disorders. More comprehensive instruments for assessing co-occurring disorders are described in Appendices I, J, K, and L, including the Psychiatric Research Interview for Substance and Mental Disorders (PRISM), the Addiction Severity Index—Fifth Version (ASI-V5), the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), the Millon Clinical Multiaxial Inventory-III (MCMI-III), and the Personality Assessment Inventory (PAI).

These assessment instruments differ significantly in their coverage of areas related to mental and substance use disorders, validation for use in community and criminal justice settings, cost, scoring procedures, and training required for administration. Other considerations in selecting assessment instruments are the level of staff training, certification, and expertise required. Case manager ratings, information from collateral informants (e.g., family members), and archival (e.g., criminal history) information should also be considered during assessment of co-occurring disorders.

Appendices I, J, K, and L provide a detailed review and analysis of available assessment instruments for co-occurring disorders. Based on the critical evaluation of these instruments, the following combination of instruments is recommended to assess for co-occurring disorders in justice settings:

1. Either the Psychiatric Research Interview for Substance and Mental Disorders (PRISM),
(or)
2. A combination of either the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), the Millon Clinical Multiaxial Inventory-III (MCMI-III), or the Personality Assessment Inventory (PAI) to examine mental disorders,
(and)

The Addiction Severity Index (ASI) to examine substance use disorders.

The PRISM requires approximately 90 minutes to administer, and the combined approach using a separate mental health and substance use instrument requires

approximately two hours. Either the DIS-IV or SCID-IV may be used to provide more precise diagnostic information, as needed, if additional time is available.

Staff Training

Those working in criminal justice settings are often inadequately trained in identification, assessment, diagnosis, treatment, and supervision of individuals with co-occurring disorders. For example, screenings are often conducted by staff who lack considerable training or experience related to mental or substance use disorders and who may be unfamiliar with related treatment services for these disorders. In recent years, a specialized base of knowledge and set of skills have been developed for working with justice-involved individuals who have co-occurring disorders. Training in these areas should be provided for all staff who are involved in screening and assessing for co-occurring disorders in the justice system.

Specialized training in criminal justice settings should be considered in each of the following areas:

- Prevalence, course, signs, and symptoms of co-occurring disorders
- Interaction of symptoms of mental and substance use disorders
- Strategies for enhancing accuracy of screening and assessment information among those who have co-occurring disorders
- Use of specialized screening and assessment instruments
- Integrated treatment approaches and other evidence-based practices
- Supervision and sanction approaches for individuals with co-occurring disorders
- Specialized services available in the community for justice-involved individuals with co-occurring disorders, and procedures for initiating referrals for assessment and treatment services.

Summary

An increasing number of individuals with co-occurring mental and substance use disorders are found in the justice system. These individuals are characterized by diversity in symptoms, level of functional impairment and life skills, behaviors exhibited before and after involvement in the justice system, and in their response to treatment. Co-occurring disorders are often undetected in the justice system due to the absence of effective screening and assessment procedures, the complicated set of symptoms presented, and by lack of training in co-occurring disorders among criminal justice and treatment staff. Non-detection of co-occurring disorders in the justice system can lead to elevated risk for suicide, worsening of mental health and related behavior problems, placement in inappropriate treatment, poor outcomes in treatment, rearrest, and reincarceration.

Given the high prevalence of mental and substance use disorders in criminal justice settings, screening and assessment approaches should be guided by the understanding that co-occurring disorders are to be anticipated. As a result, routine screening and assessment services to detect both mental and substance use disorders should be established in all criminal justice settings. Criminal justice and treatment staff should actively collaborate to share information and to provide a coordinated response in identification, treatment, and management of these disorders. Offender screening and follow-up assessment for co-occurring disorders should be provided on an ongoing basis, and at different transition points (e.g., arrest, jail booking, prison reception) throughout the system. Detection of a single disorder (i.e., either mental or substance use) during screening or assessment should immediately trigger examination for the other type of disorder. It may be useful to delay diagnosis until offenders have attained sobriety to determine the validity of symptoms related to mental and substance use disorders.

Several new instruments are available that examine both sets of disorders, and it is also quite feasible to create an integrated screening or assessment protocol by pairing instruments that address single disorders. Use of self-report instruments should be supplemented whenever possible by drug testing, examination of archival records, and review of information compiled from collateral sources. The range of available drug testing options has expanded in recent years to include urine testing, hair testing, saliva and sweat testing, blood testing, and breathalyzers. These options vary considerably in their cost, detection time, and intrusiveness. Examination of suicide risk, trauma/abuse history, and motivation and readiness for treatment should also be included whenever feasible during the processes of screening and assessment.

A number of screening instruments have been validated for use in examining mental and substance use disorders, and are recommended for use in criminal justice settings. These include the Global Appraisal of Individual Needs–Short Screener (GAIN-SS) and the Mental Health Screening Form–III (MHSF-III) that address mental disorders, and the Simple Screening Instrument (SSI) and the

Texas Christian University Drug Screen–II (TCUDS-II) that address substance use disorders. One of these mental health screens and one of these substance abuse screens can be combined to provide a quick, effective, and economically attractive screen for co-occurring disorders in the justice system. Other specialized screens for co-occurring disorders such as the BASIS-24 and CAMH-CDS (see Appendix F) have been developed recently and appear promising for use in criminal justice settings. In addition, more focused instruments are available to screen for trauma/PTSD, suicide risk, and motivation and readiness for treatment. Screening instruments implemented in the criminal justice system should be reliable; valid in detecting mental health, substance abuse, and other related problems; and optimally should have a proven record of use with offenders.

Options for assessment of co-occurring disorders in the justice system include the Psychiatric Research Interview for Substance and Mental Disorders (PRISM), a structured interview assessment instrument for co-occurring disorders, or a combination assessment approach that includes a mental health instrument (e.g., the MMPI-II, the MCMI-III, or the PAI) and a substance abuse assessment instrument (e.g., the ASI-V5). Several structured instruments are available that can provide a more detailed and lengthy diagnostic assessment, including the DIS-IV or the SCID-IV. Other specialized instruments can help to determine the chronological pattern of substance abuse and to identify the most appropriate level of treatment services for offenders who have varying degrees of substance abuse and mental health problems. In addition to reviewing areas covered in screening of co-occurring disorders (e.g., current mental health and substance abuse problems, trauma/PTSD, suicide risk, motivation and readiness for treatment), a comprehensive assessment should examine the history of mental and substance use disorders, the pattern of interaction among the disorders, cultural and linguistic needs, individual strengths, and environmental supports.

Ongoing training should be provided for staff involved in screening and assessment of co-occurring disorders in the justice system. Training should be provided in detecting signs and symptoms of co-occurring disorders, understanding the complicated symptom presentation (e.g., mimicking, masking), use of integrated screening and assessment instruments, strategies to enhance accuracy during interviews, drug testing, differential diagnosis, and initiating referral for assessment and treatment. □

Appendices

Appendix A: Drug Testing Methodologies

Urine Testing (Urinalysis)

Biochemical testing of urine is by far the dominant technology within the criminal justice system (Crouch, Day, Baudys, & Fatah, 2005). This type of testing is considered intrusive. Urine samples can either be tested on site or sent to a lab. Hand-held tests are often used for spot checks or by programs conducting fewer tests. Confirmation procedures usually involve gas chromatography. At large volumes, a SAMSHA 5-drug urine test can be administered for as little as five dollars per administration. Compared to other approaches, urinalysis is highly accurate and inexpensive. Its greatest limitation is the relatively narrow detection window. For example, urinalysis can detect amphetamine use for only one to two days and cocaine for two to four days. It is also more likely to detect marijuana use than other types of drugs because chronic marijuana use can be detected for up to 30 days, and even moderate use can be detected for about a week.

Some individuals can avoid detection of drug use by abstaining prior to the test. Several methods of attempting to “beat the test” are used, such as substituting synthetic or drug free urine, using detoxification products or masking agents, or attempting to dilute the urine by drinking excessive amounts of water (Wolff et al., 1999). Some of these methods can be detected in the lab (e.g., presence of masking agents, dilution with water). To reduce the likelihood of urine substitution, it is recommended that the sample be collected under observation and that the temperature and pH be measured immediately. Freshly voided urine has an average temperature between 90 and 100° F and an average pH between five and eight (Robinson & Jones, 2000). Specimens outside of these ranges are suspect. Specimen validity testing guidelines have been developed for drug testing labs to use to detect urine that has been adulterated, substituted, or diluted. In addition, SAMSHA has developed a list of strategies to prevent individuals from adulterating or tampering with their drug tests (CSAT, 2005b).

Hair Testing

Hair tests are considered a less intrusive method of drug testing and are effective in detecting drug use at least one week after use and up to one year or longer. It is most commonly used in cases where a longer history of drug use is required or to examine maintenance of abstinence following treatment (Kintz, Villain

& Cirimele, 2006). Hair testing can determine if an individual has used drugs regularly over time, or if there was substance use close to the time of a specific crime or other event (Pragst & Balikova, in press). When a drug is used, traces remain in the hair shaft leaving a time-ordered marker of substance use. Although hair testing can reflect use that occurred one to three years ago in a longer sample, typically a sample of hair three to five cm from the scalp and of a thickness of 50–100 strands is used. This type of sample can reveal a drug history for up to 90 days prior. Hair tests do not provide information related to the amount of drugs ingested. If the person tested does not have hair that is sufficiently lengthy on their head, underarm or other body hair can be used as a substitute. Hair testing cannot be significantly altered by brief periods of abstinence.

While hair testing guidelines have been established by the Society of Hair Testing for substances such as amphetamines, cocaine, opiates, and cannabinoids (2004), these tests are more expensive than urine testing and can be conducted at only a small number of qualified laboratories. For these reasons they are not typically used in the criminal justice system (Henry & Clark, 1999). Additionally, hair analyses can be influenced by factors such as hair treatments, hair color, gender, and ethnicity of the subject (Robinson & Jones, 2000). For example, hair of male African Americans seems to absorb certain drugs more easily than persons from other ethnic groups. This raises significant concerns related to fairness of hair testing for use in legal proceedings. Finally, different types of drugs are detected at varying rates in hair samples. For example, cocaine is one of the drugs most efficiently incorporated into a hair sample, whereas cannabis is incorporated at a much lower rate. Additionally, both cocaine and cannabis can be detected in hair samples of individuals who have been exposed to smoke or other forms of external contamination. To differentiate ingestion from external exposure, labs can test for exclusively endogenous metabolites. While there are several of these present following cocaine use, only one known metabolite (THC-COOH) is related to cannabis. To date, hair amphetamine metabolites have not been detected (Pragst & Balikova, in press).

Blood Testing

Blood testing is the most accurate method of testing because it can approximate the degree of intoxication and the time of drug use based on the amount of substances in the blood. It is the most expensive method of testing because blood must be treated as a biohazard in the lab and disposed of carefully. Additionally, it is the most intrusive testing method and has the shortest window of detection time of all types of drug testing (only one to two days; Verstraete, 2004). Due to these factors and the high cost, blood tests are rarely used in the criminal justice system unless the purpose is to determine if someone was intoxicated at the time a specific event or crime occurred (e.g., driving under the influence).

Saliva Testing

In saliva testing, samples are taken on site by having an individual place a collection pad containing a mixture of common salts between their lower gum and

cheek, and leaving it in place for at least two minutes. The pad is removed and placed into a vial which contains a preservative to minimize any degradation of substances before it is sent to a lab for processing (Clarke & Wilson, 2005). Saliva testing is more expensive than urine testing but cheaper than hair or blood testing. It is becoming more common because it is less intrusive and can be conveniently administered under direct supervision. Saliva tests are increasingly used for on site randomized drug testing due to convenience. Saliva testing is similar to blood testing in that it determines the subject's current level of intoxication. National standards or cutoff concentrations have not yet been established for saliva testing, as this is a new technology. As a result, findings from saliva testing cannot be used in legal cases; however, follow-up urinalysis tests can be admitted into testimony. Saliva testing has been found to more reliably detect substances such as methamphetamine and opiates and is less reliable in detecting THC or cannabinoids (Crouch et al., 2005).

Sweat (Patch) Tests

Sweat patches attach to the skin and monitor substance use over a period of 10–14 days, which is helpful when repeated urine tests are impractical. These patches are tamperproof and provide continuous surveillance throughout the time period in which they are worn. This is particularly helpful in monitoring treatment outcomes, as well as parole or probation compliance. Sweat patches are considered to be somewhat intrusive due to the amount of time that they need to be worn. Additionally, some believe that there is a chance of environmental contamination of the patch by the presence of drugs, such as marijuana smoke, in the environment or on the skin prior to application (Long & Kidwell, 2002).

Breathalyzers™

Breathalyzers™ can be easily administered on site and can be useful in detecting very recent alcohol use and the amount of alcohol consumed. These devices must be administered by a trained technician and calibrated to certification standards established by the U.S. Department of Transportation and Health and Human Services. Breathalyzers can be used at treatment centers to provide spot checking for abstinence, as well as recording a person's level of intoxication at the time of a specific event or crime.

Appendix B: Screening Instruments for Suicide Risk

Beck Hopelessness Scale (BHS)

The BHS (Beck & Steer, 1987) is a well-validated instrument that examines hopelessness and negative attitudes regarding the future. The BHS is 20-item true-false questionnaire that is easy to administer and score. This instrument has been translated into Spanish and Japanese, and these versions have been found to be reliable and valid indicators of suicide risk.

Positive Features

- The reliability of the BHS is well supported, and internal reliability (KR-20 coefficients) ranges from .82 to .93 (Beck & Steer, 1987)
- There is a substantial amount of evidence for the concurrent, criterion, and discriminant validity of the BHS (Beck, Brown, Berchick, Steward, & Steer, 1990; Steed, 2001)
- The instrument demonstrated 100 percent sensitivity and 71 percent specificity in predicting hospital admission among suicidal patients (Cochrane-Brink, Lofchy, & Sakinofsky, 2000)
- The BHS has been used with a range of cultural groups and with a diverse sample of clinical groups, including substance users (Beck, Steer, & Trexler, 1989)
- The BHS has been found to be predictive of suicide among men who are incarcerated in prison (Ivanoff, Jang, Smyth, & Linehan, 1994)

Availability and Cost

The BHS is commercially available and can be purchased from the Psychological Corporation at <http://www.psychcorp.com>.

Beck Scale for Suicide Ideation (BSS)

The BSS (Beck & Steer, 1991) is a 19-item self-report scale that assesses an individual's thoughts, plans, and intent to commit suicide. Two additional items examine the frequency and severity of past suicide attempts.

Positive Features

- The BSS has demonstrated high levels of internal consistency ($\alpha = .84$), temporal stability, predictive validity for the decision to admit suicidal patients to the hospital, and moderate concurrent validity and discriminant validity (Beck, Brown, & Steer, 1997)

- The BSS has better specificity and positive predictive value in identifying suicide risk, in comparison to several other measures (e.g., BHS and BDI; Cochrane-Brink et al., 2000)
- A computer-based version of the BSS is available. In a study comparing computerized self-report, pen and paper self-report, and clinician report, both self-report versions of the BSI correlated highly ($r > .90$) with the clinical scoring. Mean scores for the computerized self-reported measure were higher than the clinical ratings, indicating higher levels of endorsement of suicidal ideation via the computerized self-report (Beck, Steer, & Ranieri, 1988)

Availability and Cost

The BSS is commercially available, and can be purchased from the Psychological Corporation at <http://www.psychcorp.com>.

The Reasons for Living Inventory (RFL)

The RFL (Linehan, Goodstein, Nielsen, & Chiles, 1983) is a 48-item self-report measure that assesses beliefs and expectations that can prevent suicidal behavior. The instrument consists of six subscales, including: (1) survival and coping beliefs, (2) responsibility to family, (3) child-related concerns, (4) fear of suicide, (5) fear of social disapproval, and (6) moral objections. A shorter 12-item version of the instrument (Brief Reasons for Living Inventory; BRFL) is also available (Ivanoff et al., 1994). The RFL takes approximately 10 minutes to administer and the BRFL requires about three minutes to administer.

Positive Features

- The RFL instrument has high internal reliability with Cronbach alpha coefficients ranging from .72 to .92 for each subscale and .89 for the total scale (Linehan et al., 1983; Osman et al., 1993)
- The test-retest reliability of the RFL over a three week period is moderately high with reliability coefficients ranging from .75 to .85 for the subscales (Osman, Jones, & Osman, 1991)
- The BRFL instrument was developed using incarcerated adult men and included a culturally diverse sample (Ivanoff et al., 1994)
- The BRFL has moderately high internal consistency as indicated by a Cronbach alpha coefficient of .86 (Ivanoff et al., 1994)

Concerns

- The RFL instrument has not been validated for use with criminal justice populations

Availability and Cost

The RFL, both child and adult versions, are available free of charge at <http://www.uni.edu/osman/assessment.html>.

Suicide Probability Scale (SPS)

The SPS is a 36-item self-report measure that consists of four subscales: hopelessness, suicidal ideation, negative self-assessment, and hostility. The SPS is used in clinics, suicide prevention centers, hospital emergency rooms, inpatient units, and juvenile detention centers. An overall indication of suicide risk is provided by a total weighted score, a normalized T-score, and a suicide probability score.

Positive Features

- The SPS requires 5 to 10 minutes to administer, and can be used in group or individual settings
- The instrument provides a concise estimate of suicide risk that can enhance clinical evaluation to assess the need for appropriate intervention
- The instrument was standardized on a large sample of psychiatric patients, persons who had attempted suicide, and normal controls. As a result, separate norms are available for each group

Availability and Cost

The SDS can be purchased from Western Psychological Services at http://portal.wpspublish.com/portal/page?_pageid=53,69317&_dad=portal&_schema=portal. One manual, 25 test forms, and 25 profile forms can be purchased for the cost of \$121.

Appendix C: Screening Instruments for Trauma and PTSD

A number of specialized screening and assessment instruments have been developed for trauma and Posttraumatic Stress Disorder (PTSD) that may be useful within criminal justice settings. Several other general mental health screening and assessment instruments that also examine trauma and PTSD (e.g., MINI, PAI, SCID-IV) are described in subsequent appendices.

Impact of Events Scale (IES)

The IES is a 15-item self-report measure describing the current level of subjective stress experienced as a consequence of experiencing a traumatic event (Horowitz, Wilner, & Alvarez, 1979). The IES is one of the most widely used measures of PTSD symptoms. Unlike the majority of PTSD instruments, the IES addresses a wide range of traumatic experiences.

Positive Features

- The IES has been found to have adequate reliability and concurrent and discriminant validity, and a cohesive factor structure (Creamer, Bell, & Failla, 2003)
- The IES is easy to administer and has been used with a variety of populations

Concerns

- The IES does not provide a diagnosis of PTSD, and it only provides an estimation of avoidance and intrusive symptoms
- The IES has not been studied within criminal justice settings

Availability and Cost

The IES can also be obtained free of charge at <http://www.swin.edu.au/victims/resources/assessment/ptsd/ies.html>. It can also be found in the following article: Weiss, D. S., & Marmar, C. R. (1996). The Impact of Events Scale–Revised. In J. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399–411). New York: Guilford.

The Trauma Symptom Inventory (TSI)

The TSI is a 100-item self-report inventory that evaluates the presence of acute and chronic trauma symptoms. The instrument requires approximately 20 minutes to complete. The TSI contains 10 clinical scales that examine affective, cognitive, and physical issues. Three validity scales are included to detect efforts to either underreport or exaggerate symptoms. An alternative version (TSI-A) examines sexual issues. Separate norms are available for men and women, as well as for different age groups.

Positive Features

- The TSI is easy to administer and has been used extensively in a variety of clinical settings
- The TSI contains three validity scales designed to detect the level, typicality, and consistency of responses (Brier, 1995)
- The TSI has good internal consistency (alphas range from .74–.90), and good sensitivity (91%) and specificity (92%) (Brier, 1995)

Concerns

- Advanced clinical training is recommended for those interpreting TSI test results
- African Americans and Hispanics scored significantly higher than other racial groups on the validity and clinical scales
- Information is not available regarding test-retest reliability of the TSI scales

Availability and Cost

The TSI instrument is commercially available from the Psychological Assessment Resources, Inc., P.O. Box 998, Odessa, FL 33556; (800) 331-8378.

The Clinician-Administered PTSD Scale for DSM-IV (CAPS)

The CAPS is a structured, clinician-administered interview that assesses PTSD diagnostic criteria. The instrument was developed to enhance the validity and reliability of PTSD diagnoses by rating the frequency and intensity of each of the 17 *DSM-IV-TR* PTSD symptoms. The CAPS examines each of the three symptom clusters of PTSD (avoidance, arousal, and re-experiencing), as well as the total range of symptoms. The CAPS is a more comprehensive and valid approach than a brief screen to identify PTSD.

Positive Features

- The instrument has been used with diverse populations, including people who abuse substance and who also have a mental disorder
- The CAPS assesses current and past PTSD associated symptoms
- The CAPS provides explicit anchors and behavioral referents for guiding ratings
- The CAPS has demonstrated excellent psychometric properties in clinical and research populations (Weathers, Keane, & Davidson, 2001)

Concerns

- The CAPS is quite lengthy to administer
- A significant amount of training is required to conduct CAPS interviews

- The intensity ratings for individual PTSD symptoms may be difficult to ascertain from the range of symptoms identified

Availability and Cost

The CAPS is available for a nominal fee to mental health professionals with advanced training in the administration of diagnostic instruments for clinical or research purposes. Requests for the instrument or for a CAPS training CD (\$50) may be made at <http://www.ncptsd.va.gov/publications/assessment/caps.html>.

Appendix D: Screening Instruments for Motivation and Readiness for Treatment

Several brief screening instruments have been developed to examine motivation and readiness for treatment. These are used to identify individuals who are inappropriate for admission to substance abuse treatment, and to monitor changes in motivation and readiness over the course of treatment. As described previously, motivation and readiness for treatment has been found to predict treatment outcome, including retention in and graduation from treatment programs, and may be particularly useful in matching individuals to different levels or “stages” of treatment.

Circumstances, Motivation, Readiness, and Suitability Scale (CMRS)

The CMRS (DeLeon & Jainchill, 1986) was developed to assess risk for dropout from a therapeutic community (TC) program and to identify participants most likely to remain in substance abuse treatment. The CMRS is a 42-item scale that takes approximately 30 minutes to complete. The instrument has four subscales, Circumstances, Motivation, Readiness, and Suitability, that measure: (1) external pressures to seek treatment, (2) internal reasons to seek change, (3) perceived need for treatment to achieve change, and (4) acceptance of the therapeutic community (TC) approach, reflected by the willingness to make major lifestyle changes, long-term commitment to an intensive treatment program, and rejection or exhaustion of other treatment modalities or options. A shortened 18-item version of the instrument (CMR) was recently developed that includes three subscales: Circumstances, Motivation, and Readiness.

Positive Features

- DeLeon, Melnick, Thomas, Kressel, and Wexler (2000) found that the CMRS consistently predicts retention and entry into prison-based TCs and entry into aftercare TCs following release from custody
- The abbreviated CMR instrument has been found to predict involvement in substance abuse aftercare treatment following release from prison (Melnick, DeLeon, Hawke, Jainchill, & Kressel, 1997)
- Young (2002) found that external factors measured by the Circumstances subscale of the CMRS predicted 90-day retention of criminal justice clients in community based residential treatment programs, while the Readiness subscale of the CMRS predicted 180-day retention
- Melnick et al. (1997) found that age was significantly correlated with scores on the CMRS, and that the instrument successfully predicted short-term retention rates in TC treatment across age groups
- DeLeon, Melnick, Kressel, and Jainchill (1994) found that CMRS scales are more effective predictors of 30-day and 10-month treatment retention than a range of demographic and background variables, including legal status

- Reliability of the CMRS total score as measured by Cronbach's alpha was .84 (Melnick, De Leon, Thomas, Kressel, & Wexler, 2001), and reliabilities for individual scale scores ranged from .53 for the Circumstances scale to .84 for the Readiness scale
- The CMRS has good internal consistency (alpha = .85–.87)
- The CMRS was found to be useful in predicting 30-day retention in long-term therapeutic community treatment (DeLeon et al., 1994)

Concerns

- CMRS scores were found to vary significantly for offenders of differing intellectual functioning (Vandeveld, Broekaert, Schuyten, & Van Hove, 2005)
- The instrument has low reliability for the Circumstances scale (Vandeveld et al., 2005)
- The validity of the CMRS has not been examined among individuals with co-occurring disorders
- The CMRS has not been thoroughly evaluated to determine its usefulness in predicting retention to in-jail or community-based offender treatment programs

Availability and Cost

The CMRS manual and instruments can be obtained free of charge at <http://www.ndri.org/ctrs/ctcr/ctcrpubs.asp>, or at <http://eib.emcdda.europa.eu/index.cfm?fuseaction=public.Content&nnodeid=3597&sLanguageiso=EN>.

Readiness for Change Questionnaire (RCQ)

The RCQ (Rollnick, Heather, Gold, & Hall, 1992) is a 12-item measure based on the transtheoretical “stages-of-change” model developed by Prochaska and DiClemente (1992). The instrument was originally developed to identify the specific stage of change among excessive drinkers who are not seeking treatment, but it has been used more broadly among a range of substance-abusing populations. The RCQ consists of three subscales, Precontemplation, Contemplation, and Action, each consisting of four items. Item responses are provided on a five-point scale ranging from “strongly agree” to “strongly disagree,” with higher scores on the RCQ representing greater willingness to change. The 15-item RTCQ-TV (treatment version) was designed for individuals in treatment or who are seeking treatment (Share, McGrady, & Epstein, 2004), and is used to determine the level of readiness to engage in treatment and to assist in treatment planning. Both the RCQ and RTCQ-TV take approximately two to three minutes to administer, are designed for both adolescents and adults, and are available in the public domain. Neither instrument requires training to administer or score.

Positive Features

- The RCQ has been demonstrated to have satisfactory internal consistency, with Cronbach's alphas of .73 for the Precontemplation subscale, .80 for the Contemplation subscale, and .85 for the Action subscale (Rollnick et al., 1992)
- Test-retest reliability for the RCQ subscales has been found to be satisfactory, with correlations of .82 (Precontemplation), .86 (Contemplation), and .78 (Action). Moderate concurrent validity has been reported with perceptions of drinking severity and self-reported future change behavior (Rollnick et al., 1992)
- The RCQ has been found to have good predictive validity for changes in drinking behavior over time (Share, McGrady, & Epstein, 2004)
- The self-administered nature of the RCQ presents advantages for use in hospital and other settings in which there is limited time to compile information (Rollnick et al., 1992)

Availability and Cost

The RCQ is copyrighted but available free of charge. The instrument and scoring instructions are available in the publication *Guidelines for Recognizing, Assessing and Treating Alcohol and Cannabis Abuse in Primary Care*, published by the National Health Committee in Wellington, Australia (1999). This publication can be accessed at http://www.nzgg.org.nz/guidelines/0040/full_guideline.pdf.

Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)

The SOCRATES is a set of clinical research instruments designed to examine readiness for change among people who abuse alcohol and drugs, according to the "stages-of-change" model (Prochaska & DiClemente, 1992). The SOCRATES was developed through funding by National Institute on Alcohol Abuse and Alcoholism (NIAAA), and is a "public domain" instrument. The original instrument provided five separate subscales corresponding with the stages-of-change model, while a more recent factor analysis of the SOCRATES has led to the development of three subscales, Ambivalence, Recognition, and Taking Steps, each of which reflect different stages of motivation and readiness for treatment.

Several versions of the SOCRATES have been developed for different populations, including the following:

- 8D/A (19 items) – drug and alcohol questionnaire for clients
- 7A-SO-M (32 items) – alcohol questionnaire for significant others of males
- 7A-SO-F (32 items) – alcohol questionnaire for significant others of females
- 7D-SO-F (32 items) – drug and alcohol questionnaire for significant others of females
- 7D-SO-M (32 items) – drug and alcohol questionnaire for significant others of males

Positive Features

- Internal consistency coefficients for the SOCRATES were 0.93 for the Recognition scale, 0.84 for Taking Steps, and 0.71 for Ambivalence (Mitchell, Francis, & Tafrate, 2005)
- The SOCRATES was found to be highly reliable for use in correctional settings (Peters & Greenbaum, 1996)
- The SOCRATES Recognition subscale was found to have moderately good sensitivity and specificity in identifying substance dependent justice-involved individuals (Peters & Greenbaum, 1996)
- The instrument is brief to administer and is easily scored

Concerns

- In a review of the research, DiClemente, Schlundt, and Gemmell (2004) found only modest support for the predictive validity of the SOCRATES
- Research provides support for both two- and three-factor structures for the SOCRATES (Demmel, Beck, Richter, & Reker 2004; Figlie, Dunn, & Laranjeira, 2005; Mitchell et al., 2005), and indicates that the number of items could be reduced
- Although a study conducted by Nochajski and Stasiewicz (2005) did not support the use of the SOCRATES with DUI offenders, the Ambivalence and Recognition subscales were found to be associated with binge drinking
- The validity of the SOCRATES has not been examined among individuals with co-occurring disorders

Availability and Cost

SOCRATES is available free of charge at <http://www.nicic.org/Library/019719>.

University of Rhode Island Change Assessment Scale (URICA)

The URICA (DiClemente & Hughes, 1990; McConaughy, Prochaska, & Velicer, 1983) includes 24-, 28-, and 32-item versions of a self-report questionnaire examining motivation and readiness for treatment. The 32-item URICA consists of four subscales made up of eight items each, while the 28-item and the 24-item versions have four subscales consisting of seven and six items respectively. The four subscales included in the instrument were developed to examine the four theoretical stages of change (precontemplation, contemplation, action, and maintenance) related to individual motivation for treatment (DiClemente & Prochaska 1982, 1985; Prochaska & DiClemente, 1992). The URICA appears to identify two distinctive subtypes: pre-contemplation and contemplation/action (Blanchard, Morgenstern, Morgan, Labouvie, & Bux, 2003; Edens & Willoughby, 1999, 2000). The URICA differs from the SOCRATES in that it does not directly ask about motivation for alcohol or drug treatment, but instead presents questions in a more general manner. The URICA does not require clinical training to administer or score.

Positive Features

- Research indicates the URICA has good reliability, with estimates ranging from .79–.88 (Carey, Purine, Maisto, & Carey, 1999). Reliability estimates for the URICA are between .68 and .85 among alcohol, opiate, cocaine, and nicotine dependent individuals (Blanchard et al., 2003)
- The URICA is able to discriminate readiness to change between individuals who are alcohol dependent, with and without co-occurring depression (Shields & Hufford, 2005)
- The URICA was found to have good internal consistency among persons with co-occurring disorders (Pantalon & Swanson, 2003)
- Two measures of readiness for treatment have been derived from the URICA, a continuous measure, based on URICA subscale scores, and categorical or subtype identification. Both measures have good concurrent validity but do not predict treatment outcome (Blanchard et al., 2003)
- A motivational readiness score was derived by DiClemente et al. (2004) by summing the average of the Contemplation, Action, and Struggle to Maintain subscales, and subtracting the Precontemplation subscale score. This overall score predicted follow-up drinking outcomes among outpatients but not among those enrolled in aftercare services
- Adolescent residential treatment clients who scored high on the Precontemplation subscale of the URICA-28 were found to have greater attrition than those scoring high on the Contemplation or Preparation/Action subscales (Callaghan et al., 2005)

Concerns

- Validity research examining the URICA indicates mixed results. Studies involving alcohol abusers and psychotherapy clients provide support for the validity of the URICA's four subscales, while studies involving drug abusers do not provide such support (Carey et al., 1999; DiClemente et al., 2004)
- Although good concurrent validity was found for the URICA subtypes and the continuous (overall) score, neither the subtypes nor the continuous score successfully predicted treatment outcome (Blanchard et al., 2003)

Availability and Cost

The URICA is available free of charge and can be found at <http://www.uri.edu/research/cprc/Measures/urica.htm>.

Appendix E: Recommended Instruments for Screening of Co-Occurring Disorders

The following appendices (E, G, H) provide a critical evaluation of specialized screening instruments for co-occurring disorders, screening instruments for mental disorders, and screening instruments for substance use disorders. Instruments differ significantly in their coverage of mental health and substance abuse symptoms, validation for use in community and criminal justice settings, cost, scoring procedures, and training required for administration. Several types of screening instruments (i.e., mental health, substance abuse, specialized co-occurring disorders) are reviewed in the following appendices, including instruments that are widely used in the field, and instruments that are less widely used but that have proven psychometric properties. Based on a critical evaluation of the instruments, and a review of research comparing the efficacy of mental health screens and the efficacy of substance abuse screens, as described previously in this document, a brief set of recommendations is provided for instruments to be used in screening for co-occurring disorders in justice settings:

1. Either the Global Appraisal of Individual Needs (GAIN-SS) or the Mental Health Screening Form-III (MHSF-III) to address mental health symptoms,
(and)
2. Either the Simple Screening Instrument (SSI) or the Texas Christian University Drug Screen-II (TCUDS-II) to address substance abuse symptoms.

This combined screening would require approximately 15–25 minutes to administer and score. Additional screening for trauma and PTSD and for motivation and readiness for treatment may be provided if time is available.

Appendix F: Screening Instruments That Address Both Mental and Substance Use Disorders

A number of instruments have been developed recently that address both mental and substance use disorders. These instruments differ in the scope and depth of coverage of the co-occurring disorders and in the amount of research conducted to support their validity for use with these disorders and in criminal justice settings.

The Behavior and Symptom Identification Scale (BASIS-24)

The BASIS-24 is a 24-item self-report measure used to identify a wide range of mental health symptoms and problems. The instrument examines the degree of difficulty experienced during the previous week across six domains of functioning: depression and functioning, interpersonal relationships, self-harm, emotional lability, psychosis, and substance abuse. The BASIS-24 was derived from its predecessor, the BASIS-32, to provide a brief yet comprehensive screen of mental health symptoms and psychosocial functioning that can be used over time to examine changes in mental health status.

Positive Features

- The BASIS-24 requires from 5–15 minutes to complete and can be administered via interview, self-report instrument, or computer
- Only a fifth grade reading level is required, and the instrument can be administered by paraprofessionals
- There is evidence for the convergent, divergent, and concurrent validity of the BASIS-32 and the BASIS-24 (Eisen, Dickey, & Sederer, 2000; Eisen, Normand, Belanger, Spiro, & Esch, 2004)
- The BASIS-24 has better reliability and validity in detecting substance abuse than the BASIS-32 (Eisen et al., 2004)
- The instrument has been widely used with co-occurring populations
- The underlying structure of the BASIS-32 is thought to be stable across racial and ethnic groups, although further research is indicated (Chow, Snowden, & McConnell, 2001)
- An Internet-based scoring tool (Webscore) is available that provides automatic scoring of the BASIS-24 and a summary of results

Concerns

- The BASIS instruments have not been examined for use with criminal justice populations
- The measure was designed to assess treatment outcome and to increase consumer involvement in care, and not for diagnostic purposes

Availability and Cost

The BASIS-24 instrument is available from McLean Hospital at www.basissurvey.org or <http://www.basissurvey.org/sitemap/>. You can also contact staff at McLean Hospital at spereda@mcleanpo.mclean.org or (617) 855-2424.

Centre for Addiction and Mental Health–Concurrent Disorders Screener (CAMH-CDS)

The CAMH-CDS is a computer-administered questionnaire which screens for 11 Axis I disorders, including substance use disorders. The instrument was developed to provide a brief assessment for co-occurring disorders and is designed to determine whether DSM diagnostic criteria are likely to be met for both current and past disorders. The CAMH-CDS requires 5–20 minutes to administer, depending on the number of disorders reported. The instrument was validated using three large substance abuse treatment-seeking samples.

Positive Features

- The CAMH-CDS requires only minimal mental health training to administer
- Test results can be generated by computer immediately following administration
- The instrument demonstrates a high level of sensitivity (.92) in identifying mental disorders (Negrete, Collins, Turner, & Skinner, 2004)
- The CAMH-CDS has demonstrated excellent test-retest reliability for the mood disorder modules and anxiety disorder modules, and moderately good reliability for schizophrenia module (Negrete et al., 2004)

Concerns

- The CAMH-CDS has only limited ability to discriminate among specific mental disorders
- Although this instrument has a high level of sensitivity in detecting mental disorders, it has a significantly lower level of specificity (.74) in accurately determining that individuals do not have a mental disorder (Negrete et al., 2004)
- The CAMH-CDS often fails to discriminate between Axis I and Axis II disorders
- The criterion measure for validating the instrument was an unstructured clinical evaluation conducted by a group of trained psychiatrists who were asked to indicate whether, in their clinical judgment, certain disorders were present within two weeks of the administration of the CAMH-CDS
- The CAMH-CDS has not been tested with criminal justice populations

Availability and Cost

The CAMH-CDS is currently included in TREAT, an electronic roster of assessment and outcome measures developed by CAMH. A license is required to use the measures stored on TREAT and further costs may be required to use copyrighted instruments. TREAT may be accessed at <http://www.treat.ca/>.

Global Appraisal of Individual Needs (GAIN)

The GAIN (Dennis, White, Titus, & Unsicker, 2006) includes a set of instruments developed to provide screening and assessment of psychosocial issues related to mental and substance use disorders. The instruments emerged from clinical research protocols, including the Individual Assessment Profile (IAP) and the Client Assessment Profile (CAP) and are designed to assist in triage and referral, treatment planning, monitoring clinical progress and service utilization, and program evaluation. The GAIN has been revised frequently, and the most current format is version five. The GAIN instruments can be self-administered by paper and pencil or by computer, and can be administered via interview. A wide variety of software is available to score and interpret results of the GAIN instruments.

Several different GAIN instruments are available, including the GAIN-Short Screener, the GAIN-Quick, the GAIN-Initial, the GAIN-Monitoring (90 Day), and GAIN-Quick Monitoring. A variety of subscales is available for each of these instruments. The GAIN-Short Screener includes 20 items and requires approximately 5 minutes to administer. Four subscales address internal disorders, behavioral disorders, substance use disorders, and crime and violence. The Quick version of the GAIN requires 20–30 minutes to administer, and includes 10 sections related to a wide range of psychosocial issues related to behavioral health. These sections address substance abuse, psychological factors, physical health, stress, behavioral problems, and service utilization. The GAIN-Initial requires approximately 120 minutes to administer, and provides a full assessment of psychosocial issues related to substance abuse treatment, which may be useful for diagnostic purposes, treatment planning, placement in different levels of treatment services, and monitoring client and/or program outcomes. Several versions of the GAIN-Initial have been developed for various programs, primarily those funded by the Center for Substance Abuse Treatment and by the Robert Wood Johnson Foundation. Several follow-up forms are available to examine change over time in psychosocial areas related to treatment.

Positive Features

- The GAIN-Short Screener is quite brief to administer and is one of the few available screens that addresses both mental health and substance abuse problems
- Two different versions of the GAIN-Short Screener are available that address problems occurring either in “the past 12 months” or across different time spans (e.g., past month, “2–12 months ago,” over a year ago, never)

- Norms for the GAIN have been developed for adults and adolescents, and by level of care. Additional norms are being developed by gender, race/ethnicity, co-occurring disorders, and involvement in the juvenile and criminal justice system
- The GAIN scales have good internal consistency for use with adults, with alphas ranging from .71–.96 (Dennis et al., 2006). Tests examining concurrent validity have been conducted primarily with adolescents, but are quite promising (Dennis et al., 2006)
- Test-retest reliability has been moderately good for adolescents and adults, for key areas related to the need for treatment, frequency of use, and substance-related problems (Dennis et al., 2006)
- Mental health diagnostic impressions from the GAIN are highly correlated with independent psychiatric diagnoses across a range of disorders (Dennis et al., 2006)
- A wide variety of support services are available through the GAIN Coordinating Center
- Efforts are underway to develop a Spanish version of the GAIN instruments

Concerns

- The GAIN is a copyrighted instrument, and there are separate costs to purchase the set of instruments and for the software
- The GAIN-Short Screener contains only five items related to substance abuse, and does not include an interval measure of alcohol or drug use frequency
- Self-reported substance abuse on the GAIN is only moderately correlated with drug test and other collateral information (Dennis et al., 2006)

Availability and Cost

The GAIN instrument can be purchased at <http://www.chestnut.org/LI/gain/index.html#Instruments>.

The MINI International Neuropsychiatric Interview (MINI)

The MINI (Sheehan et al., 1998) is a 120-question structured diagnostic interview used to evaluate DSM and ICD Axis I psychiatric disorders. The instrument was designed as a brief diagnostic screening and has been used in numerous research and clinical settings. The MINI belongs to a family of structured interviews, which includes the MINI, MINI-Screen, MINI-Kid, and MINI-Plus. The MINI-Screen refers the examiner to complete a follow-up module for a particular disorder if the respondent endorses a threshold screening question. If the respondent does not endorse the item, the interviewer moves to the next section. The MINI-Plus is a fully structured instrument that assesses the presence of DSM-IV-TR Axis I disorders, including attention deficit hyperactivity disorder,

and one Axis II disorder (antisocial personality disorder). Other MINI instruments have been developed to examine Bipolar and Psychotic Disorders, and Suicidality. The MINI is also available for administration by computer.

Positive Features

- The MINI covers a broad range of symptoms and disorders, and requires approximately 20 minutes to administer to individuals who do not have a major psychiatric disorder
- The MINI provides a diagnostic impression for major Axis I disorders
- The clinician-administered version of the MINI has interrater reliability estimates ranging from .79–1.00 for all subscales, and 14 out of 23 test-retest reliability values are greater than .75 (range = .35–1.00, with only one value below .50; Sheehan et al., 1998)
- Use of the MINI resulted in more frequent diagnosis of co-occurring disorders in comparison to clinical interviews (Black, Arndt, Hale, & Rogerson, 2004)
- Only brief training is required to use the instrument
- The MINI has been translated into many different languages and has been normed separately for different populations (Sheehan et al., 1998)
- In a recent pilot study of the use of the MINI-Plus with a prison sample (Black et al., 2004), the measure was easily administered by correctional staff, well received by prisoners, and accurately assessed mental disorders in this population

Concerns

- The MINI does not consider symptom severity and thus may generate unnecessary referrals for treatment. Also, the MINI does not assess cognitive impairment
- The MINI-Screen includes only one question related to alcohol use, and one question examining drug use. This instrument does not include an interval measure of frequency or quantity of substance use
- The MINI-Plus required an average of 41 minutes to administer to prisoners, which may inhibit broad use of the instrument with this population (Black et al., 2004)
- Although malingering, denial of symptoms, and other response sets are common problems in criminal justice settings, the MINI does not have the ability to detect the presence of these response sets
- The psychosis and major depression modules of the MINI-Plus can be difficult and confusing to administer (Black et al., 2004)

Availability and Cost

The MINI comes in paper and computerized versions. The paper form may be downloaded free of charge and used once permission is given by the author. A

computerized version may be ordered for \$295 or more, depending on the version. The following website can be used to contact the author for permission to use the MINI or to purchase an electronic version of the instrument: <https://www.medical-outcomes.com/indexSSL.htm>.

Appendix G: Screening Instruments for Mental Disorders

Several mental health screening instruments are reviewed in this appendix. Without use of these instruments, mental disorders are often undetected in criminal justice settings. As a result, staff are less likely to anticipate suicidal behavior and other mental health problems, and the effectiveness of treatment is reduced.

Beck Depression Inventory-II (BDI-II)

The BDI-II (Beck, Steer, & Brown, 1996) is a 21-item self-report instrument that examines the intensity of depressive symptoms and suicidality. This instrument is one of the most widely used measures of depression. The BDI-II was developed to correspond to DSM-IV criteria of depression, and reviews key symptoms including agitation, difficulty in concentration, feelings of worthlessness, and loss of energy. Elevated scores on items related to suicidal ideation and hopelessness should be attended to carefully, since these items are the most highly predictive of suicidal behavior. Despite its usefulness in screening for depression and suicide, the BDI-II should not be used in diagnosing depression (as reported for the BDI-I; Sundberg, 1987), which requires a more intensive assessment process.

Positive Features

- The BDI-II requires little training to administer or score
- The wording of the BDI-II is clear and concise, and the measure can be completed in 5–10 minutes
- Only a fifth grade reading level is required to complete the BDI-II
- The instrument has frequently been used with substance users and has been found to be useful in screening and assessment of depression among this population (Buckley, Parker, & Heggie, 2001). For example, the BDI has been found to be among the most effective instruments in detecting depression among people who abuse alcohol (Weiss & Mirin, 1989)
- The BDI has excellent content, convergent, and divergent validity (Steer, Beck, & Garrison, 1986), and scores from the BDI are significantly correlated with other indices of depression, including the Hamilton Rating Scale for Depression ($r = .71$) and the Beck Hopelessness Scale ($r = .68$)
- The BDI has moderately good sensitivity (67%) and moderately good specificity (69%) in diagnosing depression among individuals with alcohol problems (Willenbring, 1986)
- The BDI has higher sensitivity (94%) and specificity (59%) than the Raskin Depression Scale, the HAM-D, and the SCL-90-R (Rounsaville, Weissman, Rosenberger, Wilber, & Kleber, 1979)

- The BDI-II is able to distinguish among varying levels of depressive severity (Steer, Brown, Beck, & Sanderson, 2001)
- Several studies have demonstrated high internal consistency within the BDI-II, and the average coefficient alpha was .91 (range = .89–.93; Wiebe & Penly, 2005)
- The BDI-II has been validated with a range of diverse cultural populations (Grothe et al., 2005; Penley, Wiebe, & Nwosu, 2003), and has been translated into several languages

Concerns

- Research indicates that the BDI should not be used as a sole indicator of depression, but rather in conjunction with other instruments (Weiss & Mirin, 1989; Willenbring, 1986). Like other screening instruments, the BDI-II is not a diagnostic tool, and elevated scores do not necessarily reflect a major depressive disorder, but the existence of depressed mood over the past two weeks
- Because the BDI measures subjective feelings of depression, it is difficult to discriminate normal individuals who are experiencing sadness from individuals who are clinically depressed (Hesselbrock, Hesselbrock, Tennen, Meyer, & Workman, 1983)
- The BDI-II does not differentiate among varying types of mood disorders (e.g., major depressive disorder and dysthymia; Richter, Werner, Heerlein, Kraus, & Sauer, 1998)
- The BDI-II is significantly correlated with gender (women score higher), and the correlation decreases with age and across racial/ethnic groups. Although Beck, Brown, and Steer (1989) acknowledge gender differences in the frequency and severity of depressive symptoms, only a single set of criterion-referenced interpretive guidelines is offered

Availability and Cost

The BDI-II can be purchased from Harcourt Assessment at <http://harcourtassessment.com/haiweb/cultures/en-us/productdetail.htm?pid=015-8018-370>. The cost is \$79 for one manual and 25 record forms.

Brief Jail Mental Health Screen (BJMHS)

The BJMHS was developed through funding by the National Institute of Justice and was validated using a sample of over 10,000 detainees in four jails. The BJMHS was derived from the Referral Decision Scale (RDS), which was designed to aid correctional staff in the identification of individuals who have severe mental disorders (Steadman, Scott, Osher, Agnese, & Robbins, 2005). In developing the screen, the total number of RDS items was reduced, several items were rephrased, and the assessed time span for symptom occurrence was changed from lifetime to the past six months. The BJMHS consists of six items that examine the occurrence of mental health symptoms and two items that review

prior hospitalization for mental health problems and current use of psychotropic medication.

Positive Features

- The Brief Jail Mental Health Screen is quick to administer (i.e., takes approximately five minutes)
- The instrument was validated using the SCID, which is generally acknowledged as the highest standard in assessing mental disorders
- The instrument has been tested in forensic populations and is readily adaptable for use in correctional screening processes
- Little formal training is required to administer and score the instrument

Concerns

- The screen is more effective for men than women and has an “unacceptably high” rate of false-negatives for female detainees (Steadman et al., 2005)
- The instrument does not screen for the entire spectrum of mental disorders, and is focused on the most severe disorders

Availability and Cost

The BJMHS instrument may be obtained without charge by contacting the CMHS National GAINS Center at www.gainscenter.samsha.gov

Brief Symptom Inventory (BSI)

The BSI (Derogatis & Melisaratos, 1983) is a brief, self-report screen for mental health symptoms. The 53-item instrument was developed from its longer predecessor, the Symptom Checklist 90–Revised (SCL90-R), and is especially useful in monitoring treatment outcomes and providing a summary of symptoms at a specific point in time. The BSI includes nine Primary Symptom Dimensions (scales) including Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobias, Paranoid Ideation, and Psychoticism. In addition, there are three Global Indices: Global Severity Index (GSI), measuring overall psychological distress; Positive Symptom Distress Index (PSDI), measuring the intensity of symptoms; and the Positive Symptom Total (PST), measuring the number of self-reported symptoms. There is also a briefer version of the BSI (the Brief Symptom Inventory-18), which can be completed in approximately four minutes. The BSI-18 has three Symptom Dimensions (Somatization, Depression, and Anxiety) and one Global Index, the GSI. A Profile Report is also provided, which presents raw and normalized T scores for each of the Primary and Global Scales. An Interpretive Report (not available with the BSI-18) provides a narrative summary of symptoms and scale scores. A Progress Report is available to monitor an individual’s progress over time.

Positive Features

- The BSI takes only 8–10 minutes to complete, and requires only a sixth grade reading level. The instrument can be administered via paper and pencil, audiocassette, or computer
- Over 400 studies examining the reliability and validity of the BSI indicate that it is a suitable alternative to the SCL-90-R (Zabora et al., 2001). These studies demonstrate good evidence of convergent and construct validity with the BSI. Both test-retest and internal consistency reliabilities are very good for the BSI's Primary Symptom Dimensions. These dimensions are highly correlated with those of the SCL-90-R, as are the BSI's Global scores ($> .90$)
- The BSI has been translated into several different languages
- The BSI has been used with offenders (Houck & Loper, 2002)

Concerns

- The scale is not a public domain instrument
- Separate norms are not provided for criminal justice populations

Availability and Cost

The BSI can be purchased by a qualified health care professional from Pearson Assessments at <http://www.pearsonassessments.com/tests/bsi.htm>. Costs vary depending on the desired formats.

Center for Epidemiological Studies–Depression Scale (CES-D)

Center for Epidemiological Studies–Depression Scale (CES-D) is a 20-item self-report screen that examines the frequency and duration of symptoms associated with depression. Items review symptoms occurring during the past week. The CES-D can also be administered as a structured interview.

Positive Features

- The CES-D takes approximately five minutes to complete and one to two minutes to score
- The instrument does not require professional training to administer or score
- The original CES-D is a public domain instrument
- Studies with substance abusing populations have found the CES-D suitable for detecting symptoms of depression and measuring change in these symptoms, and indicate that the instrument has high internal consistency (.93; Boyd & Hauenstein, 1997)
- The CES-D has been validated for use with a number of different racial/ethnic groups, and has been translated into several foreign languages

- The instrument has been used with both males and females in general population surveys and with various clinical samples, including both alcohol and drug using samples

Concerns

- As with other self-report measures of mental disorders, the CES-D should not be used as a sole diagnostic tool, but rather as a screening instrument to identify individuals at risk for depression
- The instrument is limited in scope and only examines depression

Availability and Cost

The CES-D is available free of charge from: NIMH, 6001 Executive Blvd. Room 8184, MSC 9663, Bethesda, MD 20892-9663; (301) 443-4513. It can also be downloaded at <http://eib.emcdda.europa.eu/index.cfm?fuseaction=public.Content&nnodeid=3593&sLanguageiso=EN>.

K6 and K10 Scales

The K6 and K10 scales were developed for the U.S. National Health Interview Survey to examine psychological distress (Kessler et al., 2003). The K6 is a six-item screen that was derived from the 10-item K10, and preliminary evidence suggests that the K6 is as sensitive in detecting mental disorder as the K10. The six core domains of the screens include nervousness, hopelessness, restlessness, depression, feeling as though everything takes effort, and feelings of worthlessness. The K10 also addresses functional impairment related to mental disorder, and whether psychiatric symptoms are attributable to medical problems. The K10 has been found to be somewhat more effective than the K6 in identifying anxiety and mood disorders (Furukawa, Kessler, Slade, & Andrews, 2003). The K10 is included in the National Comorbidity Survey Replication (NCS-R) and in the national surveys conducted by the World Health Organization's World Mental Health initiative. The scales are available in both interviewer-administered and self-administered forms.

Positive Features

- The scales appear to accurately discriminate between individuals who meet criteria for a DSM-IV diagnosis and those who do not (Kessler et al., 2003)
- Psychometric properties of the instruments are consistent across major socio-demographic subsamples (Kessler et al., 2002)
- A number of studies have used the K6 with criminal justice populations, particularly those with co-occurring disorders, and support the use of the K6/K10 scales with these populations (Swartz & Lurigio, 2005)
- The instruments have been translated into several different languages
- The scales are brief to administer and score and easy to comprehend

Concerns

- The instruments were validated for use in a general health survey context, and it is unclear to what extent it may be useful in other populations. However, preliminary studies indicate that this measure is useful in criminal justice settings (Swartz & Lurigio, 2005)

Availability and Cost

The K6 and K10 scales are available at no charge at <http://www.hcp.med.harvard.edu/ncs/ftpd/k6/K6+self%20admin-3-05-%20FINAL.pdf>. Information regarding scoring, cutoff scores, and validation research are available at http://www.hcp.med.harvard.edu/ncs/k6_scales.php.

The Mental Health Screening Form-III (MHSF-III)

The MHSF-III was designed as an initial psychological screening for use with clients entering substance abuse treatment programs. The 18-item measure contains yes/no questions examining current and past mental health symptoms. Positive responses indicate the possibility of a current problem and should be followed up by questions regarding the duration, intensity, and co-occurrence of symptoms. The following disorders are addressed in the MHSF-III: schizophrenia, depressive disorders, posttraumatic stress disorder (PTSD), phobias, intermittent explosive disorder, delusional disorder, sexual and gender identity disorders, eating disorders, manic episode, panic disorder, obsessive-compulsive disorder, pathological gambling, learning disorders, and mental retardation. The preferred mode of administration is via interview, although the instrument can also be self-administered. A qualified mental health professional should review responses to determine whether a follow-up assessment and/or diagnostic workup and treatment recommendations are needed.

Positive Features

- Preliminary research with the MHSF-III indicate that it has excellent content validity and adequate test-retest reliability and construct validity (Carroll & McGinley, 2001)
- The instrument is quite brief to administer, requiring approximately 15 minutes
- The instrument was designed to use with individuals who have co-occurring substance abuse problems
- English and Spanish versions of the MHSF-III are available

Concerns

- The reliability and validity studies were conducted in a single agency and with only a modest sample size
- Since the MHSF-III continues to undergo testing and validation, there is only a moderate amount of published research on this instrument

- The instrument has not been used extensively in criminal justice populations

Availability and Cost

The MHSF-III is available to download at no cost at <http://www.asapnys.org/Resources/mhscreen.pdf>, and from the Alcoholism and Substance Abuse Providers of New York State at <http://www.asapnys.org/resources.html>.

Symptom Checklist 90–Revised (SCL-90-R)

The SCL-90-R is an updated version of the Hopkins Symptom Checklist (Derogatis, Lipman, & Rickels, 1974) and the SCL-90. The instrument provides a 90-item, multidimensional self-report inventory that is designed to assess physical and psychological distress during the previous week. The instrument examines nine major dimensions of psychopathology, including somatization, obsessive compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The Global Severity Index for the SCL-90-R can be used to provide a summary score of psychopathology. The SCL-90-R is available in three formats: paper and pencil, audiocassette, and computerized administration. The BSI is an abbreviated version (53 items) of the SCL-90-R and is somewhat easier to score.

Positive Features

- The instrument requires no training and is brief to administer
- The instrument has been frequently used in criminal justice settings and has been found to outperform other general measures of psychological functioning among substance abusing populations (Davidson & Taylor, 2001; Franken & Hendriks, 2001)
- Internal consistency of the SCL-90 is good, based on results from the normative sample, with Cronbach’s alpha on the nine subscales ranging from .77–.90 (Derogatis, Melisaratos, Rickles, & Rock, 1976)
- When used as a screener for psychiatric disorders in nonpsychiatric populations using a criteria of a t-score greater than 63, sensitivity and specificity range from .73–.88 and .80–.92 respectively (Peveler & Fairburn, 1990)

Concerns

- The SCL-90 has poor specificity (39%) in diagnosing depression among alcoholics (94%; Rounsaville et al., 1979)
- An examination of the factor structure of the SCL-90-R in substance abusing populations suggests a single factor of general psychopathology, indicating that the SCL-90-R fails to differentiate among mental disorders in these settings (Zack, Toneatto, & Streiner, 1998)

Availability and Cost

The SCL-90-R can be purchased by qualified health care professionals from Pearson Assessments at <http://www.pearsonassessments.com/tests/bsi.htm>. Costs vary depending on the desired formats.

Appendix H: Screening Instruments for Substance Use Disorders

Substance abuse screening instruments are somewhat vulnerable to manipulation by those seeking to conceal substance abuse problems; concurrent use of drug testing is recommended to generate the most accurate screening information (Richards & Pai, 2003). A range of substance abuse screening instruments are reviewed in this appendix.

Alcohol Dependence Scale (ADS)

The ADS (Skinner & Horn, 1984) is a widely used 25-item instrument developed to screen for alcohol dependence symptoms. The instrument was developed through factor analysis of the original 147-item Alcohol Use Inventory (AUI), and is published by the Addiction Research Foundation in Toronto, Canada. Questions on the ADS are specific to the last 12 months, and can be given as a clinical interview or self-report assessment (Kahler, Strong, Stuart, Moore, & Ramsey, 2003). Only 9 of the 25 ADS items may be needed to make a reliable classification of alcohol dependence (Kahler et al., 2003). This study indicated that ADS items addressing excessive drinking were the most useful in making this classification (Kahler et al., 2003).

Positive Features

- The ADS is unidimensional as intended and has good internal consistency (Chantarujikapong, Smith, & Fox, 1997)
- The ADS has been found to have a test-retest reliability of .99 in criminal justice settings (Peters et al., 2000)
- The ADS, in combination with the ASI-Drug Use section was one of three screening instruments found to be the most effective in identifying substance “dependent” individuals who are incarcerated, and was one of the two most effective substance abuse screening instruments in identifying “non-dependent” individuals who are incarcerated (Peters & Greenbaum, 1996)
- When compared to other leading alcohol screens, the ADS was the most accurate in detecting alcohol disorders (83 percent) among justice-involved individuals (Peters et al., 2000)
- ADS scores have been found to be significantly correlated with objective measures of alcohol use severity among men who are incarcerated (Hodgins & Lightfoot, 1989)
- The ADS has been found to perform adequately in community settings (Ross, Gavin, & Skinner, 1990)
- The ADS is most effective at detecting moderate to severe levels of alcohol dependence (Chantarujikapong et al., 1997)

- The ADS is brief to administer and is easily scored

Concerns

- The ADS does not examine patterns (e.g., quantity, frequency) of recent or past alcohol use
- The ADS is limited to screening for alcohol abuse problems
- The ADS is a commercial product, although the cost is quite modest

Availability and Cost

The ADS is a copyrighted document that can be obtained from its author. A price of \$15 includes one user's guide and 25 questionnaires. Additional packets of 25 questionnaires each cost \$6.25. Requests for the kits can be mailed to: Harvey Skinner Ph.D., Department of Public Health Sciences, McMurrich Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8. Queries can be e-mailed to harvey.skinner@utoronto.ca. It can also be downloaded for free at <http://eib.emcdda.europa.eu/index.cfm?fuseaction=public.Content&nodeid=3583&Languageiso=EN>.

Alcohol Use Disorders Identification Test (AUDIT)

The AUDIT is a two-part screening method, based on ICD-10 criteria, that was developed by the World Health Organization to identify individuals who have harmful levels of drinking before alcohol-related harm occurs or physical dependence develops. The instrument was initially developed for screening in primary health care settings, and was intended for use in multiple cultures and settings to assess harmful and hazardous alcohol use in the past year. Studies indicate that the AUDIT examines two major factors — alcohol consumption and alcohol-related consequences.

The first part of the instrument (AUDIT Core) is a brief, 10-item questionnaire created to measure alcohol consumption, alcohol dependence symptoms, and alcohol-related consequences. The second part of the instrument (AUDIT-CSI, Clinical Screening Instrument) is a supplement to the Core, and assesses physiological consequences of alcohol use. The CSI consists of three sections: trauma history, abnormal physical exam findings, and serum GGT level reflective of alcohol-related effects. A brief, three-item AUDIT-C screening form is also available. The AUDIT can be administered in an interview or as a self-report instrument. Both computerized and paper and pencil versions of the AUDIT are available, and there do not appear to be significant differences in the accuracy of information produced by these different versions (Chan-Pensley, 1999). Many foreign language versions of the AUDIT have also been developed, although there are mixed findings regarding the psychometric properties of these versions (Reinart & Allen, 2002).

Positive Features

- The AUDIT is quite brief to administer, and is easy to read, requiring only a seventh grade reading level
- Items were carefully selected based on factor analytic procedures (Bohn, Babor, & Kramzler, 1995)
- Compared to the MAST and the CAGE, the sensitivity of the AUDIT is quite high (Cherpitel, 1998). The AUDIT appears to be the most sensitive instrument for current alcohol use disorders across different populations, and the best choice for use in identifying low-level hazardous drinking
- The AUDIT has generally performed well across a variety of settings and populations, with a median sensitivity of .86, and a median specificity of .89 (Reinert & Allen, 2002). The instrument's reliability is good, with median alphas in the .80's (Reinert & Allen, 2002; Shields & Caruso, 2004). The AUDIT also has good internal reliability across a range of populations (Cronbach alphas range from .80 to .94.). Research indicates that the AUDIT is equally reliable across gender, ethnic/racial, and age groups, and across different sample types (McCloud, Barnaby, Omu, Drummond, & Aboud, 2004; Shields & Caruso, 2003; Volk, Steinbauer, Cantor, & Holzer, 1997)
- The AUDIT has adequate sensitivity and specificity when a cutoff score of > 8 is used (Shields & Caruso, 2003). This cutoff score is best for detecting alcohol abuse and dependence, while lower cutoff scores are best for detecting hazardous drinking (Maistro & Saitz, 2003)
- The AUDIT has good psychometric properties across a variety of ethnic groups, including Caucasian, Hispanic, and African American men and women (Bradley, Bush, McDonell, Malone, & Fihn, 1998; Cherpitel, 1998)
- The AUDIT is a reliable and valid indicator of problem drinking among persons who have serious mental illness (Carey, Carey, & Chandra, 2003; Maistro, Carey, Carey, Gordon, & Gleason, 2000a; Maistro, Conigliaro, McNeil, Kraemer, & Kelley, 2000b; O'Hare, Sherrer, LaButti, & Emrick, 2004; Reinert & Allen, 2002), and has high sensitivity and specificity for alcohol use disorders among this population (Dawe, Seinen, & Kavanaugh, 2000; Maistro et al., 2000a, 2000b)
- Among psychiatric samples, the AUDIT has been shown to have good convergence with the SCID (Maistro et al., 2000a, 2000b). The optimal cutoff score for the AUDIT is "3" with psychiatric populations. At this cutoff level, the instrument's sensitivity is 100 percent, specificity is 86 percent, and positive predictive value is 67 percent (O'Hare et al., 2004)
- Among adolescents, the AUDIT has greater sensitivity than the CAGE in detecting "any problem," "any disorder," and "dependence" (Knight, Sherritt, Harris, Gates, & Chang, 2003), and has been shown to have good concurrent and criterion validity (Kelly, Donovan, Kinnane, & Taylor, 2002; Knight et al., 2003) and reliability (Kelly et al., 2002). No gender

differences were found in using the AUDIT among adolescent inpatients (Kelly et al., 2002)

Concerns

- The AUDIT does not examine substance abuse problems occurring prior to the last year, and is more effective in detecting current rather than previous alcohol problems (McCann, Simpson, Ries, & Roy-Byrne, 2000)
- The instrument has only moderate specificity (74 percent for the “Core”, and 40 percent for the “Clinical” component; Bohn et al., 1995)
- There has been little research examining the temporal stability of the AUDIT
- The AUDIT has been found to be more effective in identifying needs for assessment and treatment for justice-involved individuals when conducted several weeks after entry to prison (Maggia et al., 2004)
- The AUDIT-CSI is invasive and must be conducted by a trained health staff
- The AUDIT is less sensitive and more specific with females (Reinert & Allen, 2002), and is generally a better screen for alcohol use disorders among women (Dawson, Grant, Stinson, & Zhou, 2005). Some have recommended that cutoff score thresholds should be lowered when the AUDIT is used with women (Chung, Colby, Barnett, & Monti, 2002), although there is little research to validate the use of specific cutoff scores for this purpose
- The AUDIT has not been found to be highly accurate with the elderly (Reinert & Allen, 2002). The AUDIT has been found to have low sensitivity but good specificity with the elderly (O'Connell et al., 2004)
- Within a DUI sample, the AUDIT was found to be less effective in detecting substance dependence than the MAST (Conley, 2001)

Availability and Cost

The AUDIT: Guidelines for Use in Primary Care Settings – Second Edition is available free of charge from the World Health Organization at http://whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6a.pdf. This manual includes both the interview and self-report forms of the AUDIT. An online self-test version of the AUDIT is also available at <http://www.counseling.caltech.edu/drug/selftest/test1.html>, and an easy to use form and scoring rules are available at http://www.narmc.amedd.army.mil/DeWitt/Physical%20Exams/forms/alcohol_survey.pdf.

CAGE

The CAGE is a brief four-item screen to identify alcohol use problems (Mayfield, McCleod, & Hall, 1974). The CAGE is among the most widely used brief alcohol screening measures used with adults (Bastiaens, Riccardi, & Sakhrani, 2002). The four questions make up the acronym CAGE and consist of the following: 1)

have you felt you ought to Cut down on your drinking?; 2) have people Annoyed you by criticizing your drinking?; 3) have you ever felt bad or Guilty about your drinking?; 4) have you had a drink first thing in the morning to steady your nerves or to get rid of a hangover (Eye-opener)? A total score is obtained to reflect the level of alcohol use severity.

Although the CAGE reviews lifetime alcohol problems, the NIAAA has developed a version of the CAGE that examines problems during the past year. This version of the CAGE was found to be more specific but less sensitive than the traditional CAGE (Bradley, Kivlahan, Bush, McDonnell, & Fihn, 2001). The CAGE can be administered via self-report or as an interview, and similar outcomes are obtained through both approaches (Aegeerts, Buntix, Fevery, & Ansoms, 2000). A computerized version of the CAGE is also available, and this method has yielded higher rates of illegal drug use and substance use problems than administration through interview (Turner et al., 2005). The CAGEAID has been developed for screening drug use disorders.

Positive Features

- The CAGE has moderately good sensitivity (74 percent) and very good specificity (97 percent) in diagnosing substance use disorders among individuals with schizophrenia (McHugo, Paskus, & Drake, 1993), and generally has been shown to have good sensitivity and specificity among clinical populations (Bastiaens et al., 2002)
- Test-retest reliability of the CAGE was found to be .80 among psychiatric outpatients, and .95 for a community sample (Teitelbaum & Carey, 2000)
- The CAGE does not require specific training to administer
- The CAGE is quite brief to administer
- The CAGE more effectively classifies college students than the SASSI-3 (Clements, 2002). The CAGE has also been found to effectively distinguish between adolescents who have alcohol dependence disorders and those who do not have these disorders (Hays & Ellickson, 2001)

Concerns

- The CAGE does not examine patterns (e.g., quantity, frequency) of recent or past substance use, and examines a narrow range of diagnostic symptoms related to alcohol abuse and dependence
- The CAGE has not been validated for use in criminal justice settings
- The reliability of the CAGE ranges greatly (.52–.90) across samples (Shields & Coruso, 2004)
- The CAGE does not effectively discriminate between heavy and non-heavy drinking in general population samples (Bisson, Nadeau, & Demers 1999). Due to the focus on lifetime problems, the CAGE does not differentiate between persons with chronic alcohol problems and those who have not experienced problems in many years (Bradley et al., 2001)

- The CAGE is more accurate in classifying males than females (McHugo et al., 1993). The instrument underestimates alcohol problems among women (Bisson et al., 1999; Cherpitel, 2002; Matano et al., 2002; Moore, Beck, & Babor, 2002). The CAGE also has lower sensitivity among Caucasian women than African-American women. (Bradley, Boyd-Wickizer, Powell, & Burman, 1998)
- The CAGE is more sensitive among African Americans than Caucasians (Cherpitel 2002)
- The CAGE is not recommended for use with adolescents (Hays & Ellickson, 2001; Knight et al., 2003), and has performed poorly in college samples (Bisson et al., 1999)
- The CAGE has low sensitivity among older psychiatric samples (O'Connell et al., 2004)
- Within general population samples, no cutoff score for the CAGE yielded good specificity, sensitivity, and positive predictive value at the same time (Bisson et al., 1999)

Availability and Cost

The CAGE is a public domain screening instrument, the wording and scoring for which can be found at <http://pubs.niaaa.nih.gov/publications/arh21-4/348.pdf>, or in the document: Detecting alcoholism: The CAGE questionnaire. *Journal of the American Medical Association*, 252, 1905–1907.

The Dartmouth Assessment of Lifestyle Instrument (DALI)

The DALI is an 18-item, interview-administered scale that examines lifetime alcohol, cannabis, and cocaine use disorders among persons with severe mental illness. The DALI is a composite of several different instruments, and includes three items from the Life-Style Risk Assessment Interview, and the remaining 15 items from the Reasons for Drug Use Screening Test, the TWEAK, the CAGE, the Drug Abuse Screening Test (DAST), and the Addiction Severity Index (ASI). This instrument is in the developmental stage, and it has not been studied extensively among broad sets of clinical populations.

Positive Features

- The DALI has good specificity (.80) and sensitivity (1.00) in identifying substance abuse among persons with mental disorders (Rosenberg et al., 1998)
- Inter-rater reliability ranges from .86–.98 (Rosenberg et al., 1998). Test-retest reliability coefficient of .90 has been demonstrated (Rosenberg et al., 1998)
- The instrument requires approximately six minutes to administer, and is easy to score

Concerns

- The DALI was developed and validated on newly admitted psychiatric inpatients in a predominantly Caucasian, rural population
- Future research is needed to validate its use in ethnically and culturally diverse populations, and in criminal justice and substance abuse treatment settings
- The instrument only examines alcohol, cannabis, and cocaine use disorders

Availability and Cost

The DALI instrument, scoring instructions, and cutoff scores can be obtained free of charge from the Dartmouth Psychiatric Research Center at <http://dms.dartmouth.edu/prc/instruments/dali/> or at <http://dms.dartmouth.edu/prc/>.

Drug Abuse Screening Test (DAST)

The DAST (Skinner, 1982) is a brief screening instrument that examines symptoms of drug dependence. Several versions of the DAST are available, including the DAST-28, DAST-20, DAST-10, and DAST for Adolescents (DAST-A). The DAST reviews drug and alcohol problems occurring in the last 12 months. Items from the DAST were developed to align with those developed for the Michigan Alcoholism Screening Test (MAST). The DAST can be administered through paper and pencil or computerized versions (Martino, Grilo, & Fehon, 2000).

Positive Features

- The DAST is brief to administer and is easily scored
- The DAST-10 has good convergent validity with the SCID in detecting alcohol problems, and shows incremental validity over the SCID alone for this purpose (Maistro et al., 2000a, 2000b)
- The DAST-10 and DAST-20 have been found to have high internal consistency, and good test-retest reliability and positive predictive value for DSM diagnoses (Carey et al., 2003; Cocco & Carey, 1998; Maistro et al., 2000a, 2000b; Martino et al., 2000; McCann et al., 2000; Peters et al., 2000)
- The DAST can distinguish between individuals with primary alcohol problems, those with primary drug problems, and those with both sets of problems (Cocco & Carey, 1998)
- The DAST was found to be more effective than several other drug screening instruments in identifying drug dependence disorders among offenders (Peters et al., 2000)
- The DAST-A has been found to be a reliable and valid screening device for use with adolescents in psychiatric settings (Martino et al., 2000). The DAST-A is more likely to underestimate than overestimate substance use problems

Concerns

- The DAST does not examine patterns (e.g., quantity, frequency) of recent or past substance use, and is limited to screening for drug problems
- Research indicates a high number of false negatives using the DAST-10 (McCann et al., 2000)
- The DAST-20 and DAST-10 have been shown to have a multidimensional factor structure (Cocco & Carey, 1998)
- The validity of the DAST has not been examined among individuals with co-occurring disorders
- The DAST is a commercial product, although the cost is quite modest

Availability and Cost

The Drug Abuse Screening Test (DAST) instrument can be obtained by contacting: The Addiction Research Foundation, Marketing Department, 33 Russell Street, Toronto, Ontario M5S-2S1, (416) 595-6000. It can also be downloaded free of charge at <http://eib.emcdda.europa.eu/index.cfm?fuseaction=public.Content&nnodeid=3618&sLanguageiso=EN>.

Michigan Alcoholism Screening Test (MAST)

The MAST (Selzer, Vinokur, & VanRooijen, 1975) is a self-administered screening instrument, consisting of 25 items related to drinking behavior and symptoms, and consequences of alcohol use. The MAST is a public domain instrument developed through funding by NIAAA. The screen uses a yes/no format to inquire about problematic alcohol use and dependence throughout the lifetime (Toland & Moss, 1989). A total score is used to determine alcohol use severity. The MAST is among the most widely researched substance abuse screening instruments in clinical settings (Teitelbaum & Mullen, 2000). The MAST-short version (SMAST) is a widely used 13-item screening instrument that examines symptoms of alcohol dependence. This version includes items from the original MAST that were highly discriminating for alcoholism. A computer-administered version of the MAST is available, as is a geriatric version (SMAST-G).

Positive Features

- The MAST has good sensitivity in criminal justice settings, and effectively identified most individuals who are incarcerated with alcohol dependence (Peters et al., 2000). The test-retest reliability of the MAST among these individuals was found to be .86–.88 (Conley, 2001; Peters et al., 2000)
- The MAST was found to be among the most sensitive of screens for alcohol use among justice-involved individuals (Peters et al., 2000)
- The MAST demonstrates good validity and sensitivity to detecting alcohol disorders among those in psychiatric settings (Teitelbaum & Mullen, 2000). For example, the MAST has good sensitivity (88 percent) and moderately good specificity (69 percent) in identifying alcoholism among individuals

with schizophrenia (Searles, Alterman, & Purtill, 1990; Toland & Moss, 1989). The MAST is more accurate in identifying alcohol problems among males with schizophrenia than for females (McHugo et al., 1993). The MAST has a one-week test-retest reliability of .98 in a psychiatric sample (Teitelbaum & Carey, 2000)

- The MAST has been found to be reliable, to effectively discriminate between problem and non-problem drinkers (Mischke & Venneri, 1987), and to identify alcoholism and excessive drinking problems (Bernadt, Mumford, & Murray, 1984)
- The MAST requires no training to administer
- Conley (2001) found the MAST to be a more valid indicator of DSM-IV substance dependence than the AUDIT
- The SMAST-G has sensitivity of .85 and specificity of .97 (Moore, Seeman, Morgenstern, Beck, & Reuben, 2002)
- Using DSM-III criteria, SMAST had better sensitivity (.82) than the CAGE (.76) or of professional reports (Breakey, Calabrese, Rosenblatt, & Crum, 1998)
- Accuracy for the SMAST tends to improve when individuals are queried about alcohol use problems within the past year, rather than over the lifetime (Zung, 1984)
- The SMAST-G has moderate sensitivity (.71) and good specificity (.81) among the elderly (Moore et al., 2002), and an optimal cutoff score of six has been obtained with this population (Beullens & Aerlgeerts, 2004)

Concerns

- The MAST was not found to be one of the most effective screening instruments in identifying prisoners with substance dependence disorders (Peters et al., 2000)
- Both the MAST and SMAST tend to have greater sensitivity than specificity, and thus misidentify individuals as substance abusers who do not have substance abuse problems (Conley, 2001). The MAST has only moderate specificity in psychiatric settings (Teitelbaum & Mullen, 2000) and low specificity in criminal justice settings (Peters et al., 2000)
- Among DUI offenders, MAST scores were only moderately correlated with DSM-IV diagnoses of substance dependence (Conley, 2001)
- The instrument is limited to screening for alcohol problems, and does not examine patterns (e.g., quantity, frequency) of recent alcohol use
- The MAST lacks a time frame for responses. As a result, positive scores do not necessarily indicate a current alcohol problem
- Weights for MAST items were not empirically derived (Thurber, Snow, Lewis, & Hodgson, 2001)

- The MAST is not as effective in detecting alcohol problems among men (Teitelbaum & Mullen, 2000)
- In psychiatric and treatment settings, the SMAST underestimates alcohol problems among women (Breakey et al., 1998)
- The MAST may be problematic for individuals with schizophrenia, who have a tendency to answer positively when asked about hallucinations associated with heavy drinking, even when such phenomena are unrelated to alcohol consumption (Toland & Moss, 1989)

Availability and Cost

The MAST and scoring instructions can be downloaded free of charge at <http://www.henrymayo.com/pdf/ValenciaRecovery.pdf>.

Substance Abuse Subtle Screening Inventory (SASSI-3)

The SASSI-3 (Miller, 1985) is a widely used screening instrument that examines symptoms and other indicators of alcohol and drug dependence. SASSI was designed to identify individuals who are likely to have a substance use disorder, so that further assessment may be conducted regarding specific diagnostic criteria and specifiers (Lazowski, Miller, Boye, & Miller, 1998). The SASSI-3 does not screen for substance abuse, but for dependence (Arenth, Bogner, Corrigan, & Schmidt, 2001). The instrument includes an initial section consisting of 67 true/false items and eight subscales that are described as “subtle” indicators of substance use disorders. Although described as “subtle,” a number of these items refer directly to substance use. A second section of 12 items examines alcohol use, and a third section examines other drug use. Five of the subscales from the first (“subtle”) section of the instrument and the two subscales derived from the remaining (“face valid”) sections are used in determining a yes/no decision regarding the probability of a substance dependence disorder. The decision rules in making this determination are somewhat different for males and females. The instrument may be administered via paper and pencil or by computer (Swartz, 1998).

Positive Features

- Studies indicated good one and two week test-retest reliability, and internal consistency for the SASSI’s face valid subscales (Clements, 2002; Gray, 2001; Laux, Perera-Diltz, Smirnoff, & Salyers, 2005; Laux, Salyers, & Katova, 2005; Lazowski et al., 1998)
- Researchers at the SASSI Institute report that the SASSI has high sensitivity, specificity, and positive predictive power (Lazowski et al., 1998), across a range of settings
- The SASSI-A (Adolescent Form) scales have demonstrated good construct validity (Stein et al., 2005)
- The SASSI-A accurately classified 76 percent of non-admitting alcohol and drug users (Rogers, Cashel, Johansen, Sewell, & Gonzalez, 1997)

Concerns

- The SASSI was found to be the least effective of eight screening instruments in identifying prisoners with substance dependence disorders (Peters et al., 2000). The SASSI had among the lowest overall accuracy (60 percent) of the eight substance abuse screening instruments examined in this study, and had the lowest specificity (52 percent) of the five screening instruments for drug dependence disorder
- The SASSI does not address a unitary construct, and instead examines several underlying factors, in contrast to the intent of the instrument (Gray, 2001; Rogers et al., 1997; Stein et al., 2005; Sweet & Saules, 2003). The SASSI appears to have low internal consistency, reinforcing the concern that it may be measuring several constructs (Myerholtz & Rosenberg, 1998). Several of the SASSI scales appear to measure emotional problems and not substance abuse (Stein et al., 2005; Sweet & Saules, 2003). In general, it is unclear what the SASSI indirect scales are measuring (Gray, 2001). Confirmatory factor analysis indicates that the SASSI scales and related scoring keys are inconsistent with the factor structure indicated by SASSI data obtained with a large offender population (Gray, 2001)
- Direct questions related to substance abuse and dependence symptoms are more effective than subtle or indirect approaches used by the SASSI (Gray, 2001; Myerholtz & Rosenberg, 1998; Svanum & McGrew, 1995)
- The SASSI-3 and SASSI-A are no more effective than several briefer screening instruments in detecting substance abuse disorders (e.g., CAGE, DAST, MAST; Clements, 2002; Rogers et al., 1997)
- The SASSI is a commercial product and is quite expensive in comparison to other substance abuse screening instruments
- The SASSI does not examine patterns (e.g., quantity, frequency) of recent or past substance use
- The SASSI produces a high proportion of “false positives” among juvenile offenders (68 percent; Rogers et al., 1997) and adult offenders (51 percent; Swartz, 1998)
- In one of the largest samples examined, the SASSI was found to have a sensitivity rate of only 33 percent (Svanum & McGrew, 1995). The SASSI failed to classify 41 percent to 50 percent of those who self-reported drug use in an intake interview (Horrigan & Piazza, 1999)
- The SASSI-3 “subtle” subscales do not correlate well with criterion variables (Clements, 2002), and provide no improvement in classification over direct questions (Clements, 2002; Myerholz & Rosenberg, 1997; Swartz, 1998). In one study examining the SASSI-A, the “subtle” subscales did not identify half of those individuals who openly admitted alcohol or drug use (Sweet & Saules, 2003)
- The SASSI “subtle” subscales are susceptible to dissimulation, leading to misclassification (Myerholz & Rosenberg, 1997). They also demonstrate low

test-retest reliability (.25–.45; Gray, 2001; Myerholz & Rosenberg, 1997) and internal consistency (.08; Clements 2002)

- One month test-retest reliability of the SASSI in determining substance dependence is quite low (.36; Myerholtz & Rosenberg, 1998), particularly for a measure reportedly describing a relatively stable construct such as substance dependence
- The SASSI-A COR scale does not appear to be related to measures of criminal activity, and thus may be of limited value in predicting recidivism (Stein et al., 2005)

Availability and Cost

The SASSI-III is available for purchase at <http://www.sassi.com/sassi/index.shtml>.

Simple Screening Instrument (SSI)

The SSI (Center for Substance Abuse Treatment, 1994) is a 16-item screening instrument that examines symptoms of alcohol and drug dependence experienced during the past six months. The instrument was developed by the Center for Substance Abuse Treatment (CSAT) through selection of items from eight existing screening instruments, and from the DSM-III-R. The SSI examines five different “domains” related to substance dependence, including: (1) alcohol and/or drug consumption, (2) preoccupation and loss of control, (3) adverse consequences, (4) problem recognition, and (5) tolerance and withdrawal. The SSI can be self-administered or provided through an interview.

Positive Features

- The SSI was found to be one of the most effective screening instruments in identifying prisoners with substance dependence disorders (Peters et al., 2000)
- The SSI had the highest sensitivity (.87) and overall accuracy (.84) among several substance abuse screening instruments examined in a corrections-based study, and also has good specificity (.80; Peters et al., 2000)
- Test-retest reliability of the SSI among justice-involved individuals is quite good (.83–.97; O’Keefe, Klebe, & Timken, 1999; Peters et al., 2000)
- The internal consistency of the SSI is quite good among adolescents (alpha = .83; Knight, Goodman, Pulerwitz, & DuRant, 2000) and adult offenders (alpha = .91; O’Keefe et al., 1999)
- The SSI demonstrated good convergent validity with other substance abuse measures among justice-involved individuals (O’Keefe et al., 1999)
- The SSI is brief to administer and is easily scored
- The SSI is available at no cost
- The SSI is one of the most frequently used substance abuse screening instruments within state correctional systems (Moore & Mears, 2003)

Concerns

- The validity of the SSI has not been examined among individuals with co-occurring disorders
- The SSI does not examine patterns (e.g., quantity, frequency) of recent or past substance use

Availability and Cost

The SSI is available free of charge and is described in the following monograph: The Center for Substance Abuse Treatment (1994). *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases: Treatment Improvement Protocol (TIP) series 11*. Rockville, MD: U.S. Department of Health and Human Services. To order TIP #11, contact the National Clearinghouse for Alcohol and Drug Information (NCADI) at www.ncadi.samhsa.gov, (800) 729-6686, or P.O. Box 2345, Rockville, MD 20847-345. TIP #11 can be downloaded from www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.32939.

TCU Drug Dependence Screen-II (TCUDS-II)

The TCUDS-II is a 15-item public domain instrument derived from a substance abuse diagnostic instrument (Brief Background Assessment–Drug-Related Problems section) developed by the Texas Christian University, Institute of Behavioral Research as part of an intake assessment for the DATAR project, a NIDA-funded initiative evaluating the effectiveness of new treatment interventions (Simpson & Knight, 1998). The TCUDS-II provides a self-report measure of substance use problems within the past 12 months, and is based on DSM criteria. The instrument provides a brief screen for frequency of substance use, history of treatment, substance dependence, and motivation for treatment. A score of three or higher on the TCUDS-II indicates significant substance abuse problems.

Positive Features

- The TCUDS was found to be one of the most effective screening instruments in identifying substance dependent prisoners (Peters et al., 2000)
- The TCUDS had among the highest sensitivity (.85) and overall accuracy (.82) among several substance abuse screening instruments examined in a corrections-based study, and also has good specificity (.78; Peters et al., 2000)
- Test-retest reliability of the TCUDS among incarcerated individuals is quite good (.89–.95; Knight, Simpson, & Morey, 2002; Peters et al., 2000)
- Concordance between self-report and interview information obtained from an earlier version of the TCUDS (Brief Background Assessment) was quite high (Broome, Knight, Joe, & Simpson, 1996)

- The TCUDS is one of the most frequently used substance abuse screening instruments within state correctional systems (Moore & Mears, 2003; Peters et al., 2004)
- The TCUDS examines key DSM diagnostic symptoms related to substance dependence
- The TCUDS is brief to administer and is easily scored
- The TCUDS is available at no cost

Concerns

- The validity of the TCUDS has not been examined among individuals with co-occurring disorders
- When administering the TCUDS with individuals who are incarcerated, it may be useful to concurrently screen for deception, as approximately seven percent of responses may be invalid due to “faking good,” while eight percent of responses may be invalid due to “faking bad” (Richards & Pai, 2003)

Availability and Cost

The TCU Drug Screen (and a variety of other useful instruments) can be downloaded from <http://www.ibr.tcu.edu/index.htm>, at “Forms” and “Top 10 Forms” or at <http://www.ibr.tcu.edu/pubs/datacoll/top10.html>.

Appendix I: Recommended Instruments for Assessment of Co-Occurring Disorders

The following appendices (J, K, and L) provide a critical evaluation of specialized assessment instruments for co-occurring disorders, assessment instruments for mental disorders, and assessment instruments for substance use disorders. These assessment instruments differ significantly in their coverage of areas related to mental and substance use disorders, validation for use in community and criminal justice settings, cost, scoring procedures, and training required for administration. Based on the critical evaluation of assessment instruments provided in these appendices, the following combination of instruments are recommended to assess for co-occurring disorders in justice settings:

1. Either the Psychiatric Research Interview for Substance and Mental Disorders (PRISM),
(or)
2. A combination of either the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), the Millon Clinical Multiaxial Inventory-III (MCMI-III), or the Personality Assessment Inventory (PAI) to examine mental disorders,
(and)
The Addiction Severity Index (ASI) to examine substance use disorders.

The PRISM requires approximately 90 minutes to administer, and the combined approach using a separate mental health and substance use assessment instrument requires approximately two and a half hours. Either the DIS-IV or SCID-IV may also be used to provide more precise diagnostic information, as needed, if additional time is available.

Appendix J: Assessment Instruments That Address Both Mental and Substance Use Disorders

Psychiatric Research Interview for Substance and Mental Disorders (PRISM)

The PRISM is a semi-structured interview designed to address the problem of diagnosing psychopathology people who abuse substances. The instrument requires approximately 90 minutes to administer. As a result of the increasing recognition of the relevance of co-occurring mental and substance use disorders, DSM-IV emphasizes the importance of distinguishing between substance-induced psychiatric symptoms related to active use and withdrawal, and “primary” psychiatric disorders (Samet, Nunes, & Hasin, 2004). Since specific guidelines for these diagnostic decisions did not exist prior to DSM-IV, there were problems with reliability and validity of mental health diagnoses among people who abused substances. The PRISM examines current and lifetime substance abuse and dependence, Axis I mental disorders, and borderline and antisocial personality disorders. The substance use sections are presented prior to other diagnostic sections. Therefore, the interviewer has the substance use history information available when assessing mental disorders.

Positive Features

- The PRISM addresses the problem of diagnosing depression in people who abuse substances
- The PRISM has excellent reliability for current primary major depression (Hasin, Samet, Nunes, Mateseoane, & Waxman, 2006)
- Severity measures, consisting of a continuous rating of the number of symptoms present, are provided for some Axis I disorders such as Major Depressive Disorder and Substance Dependence
- For higher prevalence categories of DSM-IV substance dependence, such as alcohol, cocaine or cannabis, reliability is good to excellent ($\alpha = .72-.97$; Hasin et al., 2006)
- The instrument distinguishes between primary and substance-induced disorders
- A Spanish version of the PRISM is available and appears to have some advantages over the Spanish version of the SCID in diagnosing major depression and borderline personality disorders among people who abuse substances (Torrens, Serrano, Astals, Pérez-Domínguez, & Martín-Santos, 2004)
- The PRISM was tested using a racially/ethnically diverse sample

Concerns

- Reliabilities for low-prevalence substances of abuse are only fair (.59–.74; Hasin et al., 2006)
- The PRISM's anxiety disorders module does not demonstrate good reliability (alpha = .56; Hasin et al., 2006)
- The interview must be administered by highly trained professionals
- The PRISM has not been widely used or tested in criminal justice populations

Availability and Cost

The author of the PRISM maintains a website (<http://www.columbia.edu/~dsh2/prism/>) from which the instrument and manual can be downloaded. This site contains information regarding the PRISM's psychometric properties and available training.

Appendix K: Assessment Instruments for Mental Disorders

Minnesota Multiphasic Personality Inventory-2 (MMPI-2)

The MMPI (Hathaway & McKinley, 1951; Hathaway & McKinley, 1967; Hathaway & McKinley, 1989) is one of the most widely used objective personality tests throughout the world. The instrument has been used in correctional settings since 1945 to classify individuals and to predict their behavior while incarcerated and after release (Megargee & Bohn, 1979; Megargee & Carbonell, 1995). The instrument is a self-report measure with 567 items and 10 main clinical scales, including Hypochondriasis, Depression, Hysteria, Psychopathic Deviancy, Masculinity-Femininity, Paranoia, Psychasthenia (obsessive-compulsive features), Schizophrenia, Hypomania, and Social Introversion. The MMPI provides 15 supplementary content scales that address internal traits, external traits, and general problems. In addition, the MMPI contains six validity scales that examine response sets, including unanswered items, endorsement of uncommon items, and inconsistent responding.

The MacAndrew Alcoholism Scale-Revised (MAC-R) was developed to differentiate alcoholic from nonalcoholic psychiatric patients. This supplementary scale on the MMPI-2 includes 49 items that provide a subtle screening measure to differentiate alcoholics from nonalcoholics (Searles et al., 1990). A 13-item Addiction Acknowledgment Scale (Weed, Butcher, McKenna, & Ben-Porath, 1992) was developed using items in the MMPI-2 whose content is clearly related to substance abuse. The Addiction Potential Scale was also developed, which included heterogeneous items related to extroversion, excitement seeking, risk taking, and lack of self-efficacy.

The MMPI-2 Criminal Justice and Correctional Report was recently developed for use in criminal justice settings. This report assists in determining diagnoses and analyzing the MMPI-2 validity, clinical, and content scales, and supplementary scales. The report provides information relevant to assessment, risk assessment, and treatment and program planning for individuals involved with the criminal justice system. The report contains several behavioral dimensions that examine the need for further mental health assessment, conflict with authorities, extroversion, likelihood of favorable response to academic or vocational programming, and hostile peer relations. Several potential problem areas are also identified, related to alcohol or substance use, manipulation of others, hostility, and anger control.

Positive Features

- The MMPI-2 was normed using a large sample that was representative of the U.S. population
- A specialized interpretive report is available for justice-involved individuals

- Scales and profile configurations, which indicate personality profiles, have similar correlates in forensic settings as other settings (Graham, 2006)
- The MMPI-2 has been used extensively with justice-involved individuals
- The MMPI-2 is available in several languages and can be administered using paper and pencil format, by audio recording, or using a computerized version of the instrument
- Only a sixth grade reading level is required

Concerns

- Since the MMPI-2 is based on psychological constructs developed in the 1940s, both the content and clinical scales are somewhat heterogeneous. As such, there is some overlap among scales which lessens the discriminant validity of this measure. For example, while it is possible to differentiate between bipolar disorder and schizophrenia using the Depression (Dep) content scale, no clinical or content scales on the MMPI-2 are able to differentiate between bipolar depression and unipolar depression (Bagby et al., 2005)
- The K correction scale does not have empirical support in many populations (Barthalow, Graham, Ben-Porath, Tellegen, & McNulty, 2002), and there is some disagreement regarding the cutoff level to use for different validity scales to detect malingering (Meyers, Millis, & Volkert, 2002)
- Hispanics produce higher scores on the Lie scale, and culturally specific norms or corrections have not been developed for this scale
- The MMPI-2 scale names do not reflect the domains that are measured
- The MMPI was developed using an empirical approach with the goal of discriminating individuals with specific psychiatric diagnoses from individuals without any diagnosis. However, items were not selected based on theory or psychopathology research
- The MAC-R scale does not have good internal consistency (.56 for men and .45 for women; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). In addition, several studies have urged caution when using the MAC-R scale with African Americans (Graham, 2006)
- The MMPI-2 is somewhat longer to administer than the PAI

Availability and Cost

The MMPI-2, manual, and scoring sheets can be purchased at http://www.pearsonassessments.com/tests/mmpi_2.htm.

Millon Clinical Multiaxial Inventory-III (MCMI-III)

The MCMI-III (Millon, 1983, 1997) is an objective, self-report psychological assessment measure consisting of 175 true/false items. The MCMI is designed to assess DSM-IV Axis II (personality) disorders and related clinical syndromes (Axis

I), and is particularly useful in identifying personality disorders that may affect involvement in treatment. The Personality Inventory consists of 14 Personality Disorder Scales and 10 Clinical Syndrome Scales, both of which include separate Moderate and Severe Syndrome Scales. In addition, there are Correction Scales that help detect random responding and consist of three modifying indices (i.e., disclosure, desirability and debasement) and one validity index. The MCMI-III contains three Facet Scales for each MCMI-III Personality Scale. The Facet Scales were included to guide clinicians in the interpretation of the Clinical Personality Patterns and the Severe Personality Pathology Scales and were developed using factor analytic techniques. The scales aid in identifying the specific personality processes (e.g., self-image, interpersonal conduct, cognitive style) that contribute to overall scale elevations.

Two of the Moderate Syndrome Scales of the MCMI-III address substance abuse (B – Alcohol Dependence, T – Drug Dependence). The MCMI-III is well suited for use in correctional settings. A separate Correctional Summary includes the use of special correctional norms for certain scales and a one-page summary of likely needs and behaviors relevant to corrections settings, including the need for mental health and substance abuse treatment. The report classifies a justice-involved individual's probable needs as low, medium, or high in the areas of mental health intervention, substance abuse treatment, and anger management services. In addition, escape risk, reaction to authority, disposition to malingering, and suicidal tendencies are evaluated.

Positive Features

- The MCMI-III provides an interpretive report that describes potential DSM-IV diagnoses that may apply
- The MCMI-III is brief to administer, requiring approximately 25 minutes to complete
- The instrument can be administered via paper and pencil, audiotape, CD, or computer
- The instrument is available in English and Spanish
- The measure was normed with adult inpatient and outpatient clinical samples, and with individuals in jail and prison
- The sensitivity and specificity of MCMI-III Scales B (alcohol dependence) and T (drug dependence) improved significantly compared to previous research using the MCMI I and MCMI II (Craig, 1997)

Concerns

- Little research has been conducted to examine the cultural sensitivity of the MCMI-III
- An eighth grade reading level is required, which may be problematic in some criminal justice settings
- Based on the invalidation conditions provided in the MCMI-III manual, approximately 13 percent of randomly responding individuals had invalid

and non-interpretable results (Charter & Lopez, 2002). This research also indicates that too few items may be contained in the validity scale of the MCMI-III

- The MCMI-III may underreport personality disorders among justice-involved individuals (Retzlaff, Stoner, & Kleinsasser, 2002)
- In prior versions of the MCMI, the Drug Abuse Scale was found to have poor sensitivity (.39) but high specificity (.88) in identifying people who abused substances (Calsyn, Saxon, & Daisy, 1990)

Availability and Cost

The MCMI and manual can be purchased at http://www.pearsonassessments.com/tests/mcmi_3.htm. Costs vary depending on desired format.

Personality Assessment Inventory (PAI)

The PAI is a self-administered objective test of personality and psychopathology developed to provide information related to treatment planning and evaluation. Although the instrument was introduced more recently than the MMPI and the MCMI, it has received considerable attention by clinicians and researchers because of its rigorous methodology. The development of the PAI was based on a construct validation framework that emphasized a rational, as well as quantitative method of scale development. A strong emphasis is placed on a theoretically informed approach to the development and selection of items (Morey, 1998). Key areas examined by the PAI include: response styles, clinical syndromes, interpersonal style, treatment complications, and subject's environment. The instrument comprises 344 items and 22 non-overlapping full scales, including 4 validity scales, 11 clinical scales, 5 treatment consideration scales, and 2 interpersonal scales. Clinical scales include separate measures for alcohol problems, drug problems, somatic complaints, anxiety-related disorders, depression, mania, paranoia, schizophrenia, borderline personality disorder, and antisocial personality disorder.

Positive Features

- PAI test items and scales were empirically derived, and are based on research and personality theory (Morey, 1991)
- Full scale reliability estimates for the PAI were found to be large, averaging .82 (Boone, 1998)
- Construct validity of the PAI has been demonstrated in the area of forensic assessment (Douglas, Hart, & Kropp, 2001) in the use of the PAI validity scales to predict misconduct in incarcerated populations (Edens & Ruiz, 2006)
- The PAI was standardized on a sample that matched the 1995 Census on gender, race, and age (Morey, 1998)
- Only a fourth grade reading level is required for the PAI

- Validity scales allow the clinician to detect whether items are left unanswered, answers are inconsistent, infrequent items are endorsed, and if attempts are made to provide an overly negative or positive impression
- Information regarding symptom severity is provided, which helps in developing assessment and treatment recommendations
- The PAI includes 27 critical items, chosen based on their importance as indicators of potential crisis situations. These items facilitate follow-up probes to examine the need for crisis or other clinical services
- A Profile Interpretation is provided with each report to guide the clinician in developing treatment approaches

Concerns

- The PAI is lengthy to administer, requiring up to two and a half hours to complete
- Only trained mental health professionals can administer and interpret the PAI
- The alcohol and drug scales are susceptible to denial since the item content is not subtle
- The PAI is a commercially available instrument

Availability and Cost

The PAI is available at cost from Psychological Assessment Resources at <http://www3.parinc.com>.

Appendix L: Assessment Instruments and Related Protocols for Substance Use Disorders

Addiction Severity Index-Fifth Version (ASI-V5)

The ASI (McLellan et al., 1992; McLellan, Luborsky, O'Brien, & Woody, 1980) is one of the most widely used substance abuse instruments for screening, assessment, and treatment planning. The 155-item instrument was designed as a structured interview to examine alcohol and drug dependence, the frequency of use, and other psychosocial areas that have been affected by using substances. Additional versions of the ASI include one designed for clinical and training purposes (ASI-CTV) and a brief version that takes 30 minutes to administer (ASI-Lite). Self-report and clinician administered computerized versions (ASI-Net and CA ASI-Net) and interactive voice response (ASI-IVR) automated telephone versions of the ASI are also available (Brodey et al., 2004; Rosen et al., 2000). The mean correlation between composite scores obtained during interview and automated administrations of the ASI was .91, indicating high reliability (Brodey et al., 2004).

The ASI includes seven subscales that examine areas of functioning commonly affected by substance abuse, including drug and alcohol use, family and social relationships, employment and support status, and mental health status. The ASI also reviews indicators of emotional, physical, and sexual abuse. The ASI measures frequency of use but does not address quantity of use, as quantity may be underestimated and frequency is easier to recall (McLellan et al., 1992). Many agencies, including those in criminal justice settings, have adapted modified versions of the ASI for use in substance abuse screening. Two independent sections of the ASI examining drug and alcohol use are frequently used for this purpose. A sixth edition of the ASI is currently being developed.

Positive Features

- Preliminary research indicates that the ASI is reliable and valid for use with persons who have co-occurring disorders (Carey, 1997)
- The ASI-Drug Use section, in combination with the ADS, was one of three sets of screening instruments found to be the most effective in identifying substance dependent justice-involved individuals (Peters et al., 2000)
- The ASI is highly correlated with objective indicators of addiction severity (McLellan et al., 1980, 1985; Searles et al., 1990) and with DSM-IV diagnoses of both alcohol and drug dependence (Rikoon, Cacciola, Carise, Alterman, & McLellan, 2006)

- The ASI is one of the few instruments that reviews multiple areas of psychosocial functioning that are affected by substance use and that affect treatment engagement and outcomes
- The ASI describes recent and long-term patterns of substance use and examines a range of different legal and illegal substances
- ASI normative data are available for the criminal justice populations (McLellan et al., 1992). The ASI has been validated for use with justice-involved individuals and is frequently used across a variety of substance using populations (Gresnigt, Breteler, Schippers, & Van den Hurk, 2000; Knight, Simpson, & Hiller, 2002; McLellan et al., 1992; Peters et al., 2000; Vandavelde et al., 2005)
- Severity ratings are provided in each functional area assessed, reflecting impairment in areas of psychosocial functioning. These continuous scores are useful for clinical and research purposes
- The ASI has good inter-rater reliability and test-retest reliability among people who abuse substances (McLellan et al., 1985)
- The ASI has been translated into many languages and has been validated for use in a range of settings
- The ASI is a public domain instrument and is available at no cost
- Many criminal justice agencies have used sections of the ASI for substance abuse screening (McLellan et al., 1985; Peters et al. 2000)
- The ASI can also be used to screen for trauma and PTSD (Najavits et al., 1998)

Concerns

- The ASI is somewhat lengthy to administer, requiring from 45–90 minutes, although the alcohol and drug sections could be completed in significantly less time
- Substantial training is needed to administer and score the ASI
- The sensitivity and specificity are difficult to estimate since the instrument was designed to assess treatment outcomes rather than for screening
- The ASI was developed for use with individuals seeking treatment, rather than as a screening tool
- The ASI may not have adequate reliability and validity for use with drug dependent persons with severe and persistent mental disorders (Carey, 1997; Corse, Hirschinger, & Zanis, 1995; McLellan, Cacciola, & Alterman, 2004; Zanis, McLellan, & Corse, 1997)

Availability and Cost

The ASI is a public domain instrument developed by the Treatment Research Institute, 600 Public Ledger Building, 150 South Independence Mall West,

Philadelphia, PA 19106, (215) 399-0980, available at www.tresearch.org, or <http://www.tresearch.org/resources/instruments.htm>.

Timeline Followback (TLFB)

The TLFB procedure is used to obtain a detailed history of daily use of alcohol and other substances over a specific period of time, from 30 to 360 days, but usually within the previous three months. The TLFB involves using a blank calendar to help produce a detailed pattern of alcohol use and other substance use over specified time intervals. The calendar is used to help individuals identify and note memorable occasions over these time intervals (e.g., the past 30 days) to aid in recall of daily alcohol and drug use behaviors. Common variables computed from this daily drinking data include the number of drinking days, average drinks, total drinks per month, and maximum drinks consumed during one occasion (Pedersen & LaBrie, 2006). This approach provides a more accurate and comprehensive assessment of individual drinking and drug use patterns as compared to typical quantity and frequency measures that may underestimate substance use behavior (Sobell et al., 2003). The TLFB requires approximately 10–30 minutes to complete and is available in several languages.

Positive Features

- The TLFB method has been demonstrated to have very good test-retest reliability for drinking, illicit drug use, and psychosocial functioning ($r > .90$; Tonigan, Miller, & Brown, 1997)
- Additionally, the TLFB is highly correlated with general life functioning ($r = .62-.99$), and produces few false negative errors for most categories of drugs when compared to urinalysis (Westerberg, Tonigan, & Miller, 1998)
- The measure can be administered by an interview or via computer. The computerized version of the TLFB provides detailed instructions for self-administration and allows measurement of time intervals up to 12 months. The computerized version of the TLFB requires the same amount of time to administer as the interview version
- Comparisons have been conducted between the TLFB and ASI for persons with co-occurring mental disorders, with findings of excellent agreement between the two instruments ($\kappa = .79$; Carey, 1997). However, the TLFB may yield higher estimates of drinking than the ASI over a 30-day interval
- The TLFB has been used successfully with criminal justice populations (Broner, Maryl, & Landsberg, 2005)

Concerns

- Completion time for the TLFB depends on the time period covered and the individual's pattern of consumption

Availability and Cost

The TLFB instrument is available free of charge online from the Nova Southeastern University, Center for Psychological Studies at http://www.nova.edu/gsc/online_files.html. The *Timeline Followback – User’s Guide* is available from the Centre for Addiction and Mental Health at http://www.camh.net/Publications/CAMH_Publications/timeline_followbk_usersgd.html.

A six-month timeline followback protocol was developed by Dartmouth University, and has been used with clients who have co-occurring disorders. This protocol is available free of charge at <http://dms.dartmouth.edu/prc/instruments/timeline/>.

American Society of Addiction Medicine – Patient Placement Criteria (ASAM PPC)

The importance of assessment in matching justice-involved individuals to appropriate levels of behavioral health services has been recognized as among the most fundamental of evidence-based approaches (CSAT, 2005b). One approach to assist in the treatment matching process consists of placement criteria, including those developed by the American Society of Addiction Medicine (ASAM). The ASAM’s Patient Placement Criteria (PPC) for the Treatment of Psychoactive Substance Use Disorders (Hoffman, Halikas, Mee-Lee, & Weedman, 1991) were developed through a consensus process, and this approach has subsequently been used by a number of states, and increasingly by managed care organizations to modify treatment matching approaches for use in the behavioral health field. The ASAM PPC were revised in 1996, and again in 2001 (ASAM PPC-2R; Mee-Lee, Shulman, Fishman, Gastfriend, & Griffith, 2001).

The ASAM criteria provide separate guidelines for adolescents and adults. The ASAM PPC-2R guidelines operationalize six assessment dimensions to define bio-psychosocial severity within the ASAM criteria: (1) acute intoxication and/or withdrawal potential, (2) biomedical conditions and complications, (3) emotional, behavioral, or cognitive conditions and complications, (4) readiness to change, (5) relapse, continued use, or continued problem potential, and (6) recovery/living environment.

Criteria described for each of the six dimensions are then used to guide placement to one of five levels of treatment services, which vary by the intensity of services provided: (1) level 0.5 – Early intervention, (2) level I – Outpatient treatment, (3) level II – Intensive outpatient/partial hospitalization treatment, (4) level III – Residential/inpatient treatment, and (5) level IV – Medically managed intensive inpatient treatment.

The most recent version of the ASAM PPC (PPC-2R, 2001) was the first to identify the need for substance abuse programs to provide integrated services for co-occurring disorders. The ASAM PPC-2R guidelines recognize that for persons with co-occurring disorders, the disorder that causes the most functional impairment should be considered in making the placement to a particular type of

treatment setting. Treatment programs described in the PPC-2R may be either “dual diagnosis capable,” or “dual diagnosis enhanced” to address persons with co-occurring disorders who have less stable or more stable mental health problems. For each level of treatment, criteria are specified (within dimensions two to six) for dual diagnosis capable and enhanced programs.

Although the ASAM criteria have been commonly used in community-based settings to guide treatment matching, they have only recently been implemented in the criminal justice system. For example, 34 percent of drug courts in a recent survey reported using the ASAM PPC (American University, 2001), and several states are now using the ASAM criteria to place individuals convicted of DUI/DWI offenses in different types of treatment programs. The ASAM PPC or other similar systems could provide a structured approach to match justice-involved individuals to different levels of treatment intensity, structure, and supervision (CSAT, 2005b). Adaptations to the ASAM PPC that would be needed for criminal justice settings include adding a “dimension” to address the risk for criminal recidivism and modifying the “levels” of treatment services and related criteria to include drug courts, probation restitution or other day treatment centers, and jail- and prison-based programs.

Availability and Cost

The ASAM PPC can be purchased from the American Society of Addiction Medicine website at <http://www.asam.org/ppc/ppc2.htm>. The costs are \$85 (plus shipping) for nonmembers and \$70 (plus shipping) for members of ASAM.

Appendix M: Instruments for Diagnosis of Co-Occurring Disorders

The Composite International Diagnostic Interview (CIDI)

The CIDI is a structured comprehensive interview developed by the World Health Organization (WHO) for epidemiological surveys to assess mental disorders according to the definitions and criteria of the International Classification of Disease (ICD, ICD-10) and the DSM (DSM-IV). The CIDI is one of the most widely used structured diagnostic interviews in the world, as it was developed specifically for use for different cultures and settings. The instrument was derived from the Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981) and accommodates diagnoses based on the definitions and criteria of the ICD and DSM. The CIDI was first used in 1990, and was revised and expanded in 1998 by the WHO World Mental Health (WMH) initiative to address subthreshold impairment, symptom severity and persistence, risk factors, internal and external (global) impairment, consequences, patterns of treatment, and treatment adequacy, in addition to diagnosis of mental disorders (Kessler & Ustun, 2004). The WMH-CIDI contains 22 diagnostic sections (including anxiety, mood, and eating disorders, tobacco and substance use, ADHD, conduct disorder, psychosis, and personality disorders), four sections assessing functioning and physical comorbidity, two sections assessing treatment, seven sections assessing sociodemographics, and two sections assessing methodological factors (e.g., interviewer observations).

Positive Features

- The CIDI provides both ICD-10 and DSM-IV diagnoses
- A diverse sample was used to develop the instrument, including individuals with a broad range of alcohol and drug use severity
- A computerized version of the CIDI is available, which contains a scoring algorithm to provide a diagnosis. The computerized version has the ability to handle more elaborate “skip” patterns, while covering the same information as the paper and pencil version (Andrews & Peters, 2003)
- The WMH-CIDI has been translated into several languages using the standard WHO translation and back-translation protocol
- Administration of the CIDI does not require use of mental health professionals or those with significant clinical training
- The CIDI diagnoses for alcohol and drug dependence have been found to be reliable, although reliability is generally poor for corresponding harmful use and abuse diagnoses (Kessler et al., 1998; Ustun et al., 1997)

Concerns

- The CIDI is quite lengthy and requires an average of two hours to administer
- Use of the WMH-CIDI requires completion of a training program that covers interviewing techniques and field quality control
- No data is available regarding the instrument's effectiveness in criminal justice settings

Availability and Cost

Both printable to paper and computerized versions of the CIDI can be obtained free of charge from the World Health Organization at <http://www3.who.int/cidi/index.htm>.

Diagnostic Interview Schedule—Fourth Edition (DIS-IV)

The DIS-IV is a fully structured diagnostic interview instrument designed for research purposes (Blouin, Perez, & Blouin, 1988; Robins et al., 1981) and has been updated to coincide with revisions to diagnostic categories in the DSM. A self-administered computerized version of the DIS is available (C-DIS), although staff must be present to address respondents' questions. Administration of the DIS does not require clinical experience. The DIS-IV has 22 modules, which include demographic and risk factors, sequencing of co-morbid disorders, observations of psychotic symptoms or other problems during the interview, and a range of individual modules examining different types of disorders related to mood, anxiety, eating, schizophrenia spectrum, somatization, alcohol and substance use disorders, antisocial personality disorder, ADHD, dementia, and gambling. The DIS provides information regarding both current and lifetime diagnoses of common mental disorders.

Positive Features

- The DIS has been used to detect the presence of psychiatric disorders in the criminal justice system and refer detainees to treatment (Lo, 2004; Teplin, 1990)
- The DIS includes an Antisocial Personality Disorder module, which is commonly associated with substance abuse
- The DIS has good agreement with the MAST (.79) in detecting alcoholism among individuals treated for mental disorders (Goethe & Fisher, 1995)
- The DIS has good test-retest reliability (95 percent agreement for severe disorders) in diagnosing men who are incarcerated in jail (Abram & Teplin, 1991)
- The DIS can be administered by non-clinicians, and requires minimal training
- The DIS has been translated into many languages

Concerns

- The DIS is quite lengthy, requiring from 90–120 minutes to administer. It is possible, however, to omit sections that are not of concern
- Structured instruments such as the DIS may fail to detect 25 percent of those abusing alcohol (Drake et al., 1990) and possibly more of those who are abusing illicit substances (Stone et al., 1993)
- There is poor agreement between the DIS and the SADS-L in diagnosing depression among individuals with co-occurring alcohol and drug problems (Hasin & Grant, 1987)
- The C-DIS provides poor to moderately good (-.05 to .70) test-retest reliability in diagnosing comorbid substance use and mental disorders, depending on the type of mental disorder (Ross, Swinson, Doumani, & Larkin, 1995)
- The DIS is not sensitive to response styles and does not provide methods for detecting dissimulation (Alterman et al., 1996)

Availability and Cost

A copy and license for the use of the DIS (computerized version) may be purchased at <http://epi.wustl.edu/dis/dishome.htm>. The cost for licensing ranges from \$1000–\$2000.

Psychiatric Diagnostic Screening Questionnaire (PDSQ)

The PDSQ is a 126-item self-administered instrument that assesses 13 of the most common DSM-IV Axis I disorders found in outpatient mental health settings. The instrument was designed to assess current and recent symptomatology, and to provide background information prior to a more extensive diagnostic evaluation. The PDSQ examines five areas, including eating disorders, mood disorders, anxiety disorders, substance use disorders, and somatoform disorders. The PDSQ also includes a six-item screen for psychosis. The instrument has undergone several iterations to enhance the reliability and validity, and indices of mania, dysthymic disorder, and anorexia were eliminated from the instrument due to poor psychometric features.

Positive Features

- Sensitivity across subscales for major diagnostic groups was found to be .88, and the specificity was .99. Similarly for co-occurring diagnoses, the sensitivity was .87 and specificity .98 (Zimmerman & Sheeran, 2003)
- The instrument has good to excellent levels of internal consistency, test-retest reliability, and discriminant, convergent, and concurrent validity (Zimmerman & Mattia, 2001)
- For individuals with a substance use disorder, the mean sensitivity across all subscales was .92 and the mean specificity was .97 (Zimmerman, Sheeran, Chelminski, & Young, 2004)

- The PDSQ has been used extensively with populations that have co-occurring disorders and may assist in detecting disorders that are missed during unstructured clinical evaluations
- The PDSQ was developed to be congruent with the current DSM diagnostic nomenclature
- The scale requires only 15 minutes to administer, yet covers a number of mental disorders

Concerns

- The PDSQ has not been studied within justice-involved populations
- The instrument was recently developed and may be subject to additional revisions
- The psychosis subscale did not reach a sensitivity level of .80 (Zimmerman & Mattia, 2001)
- No current indices are available for mania, dysthymic disorder, or anorexia

Availability and Cost

The PDSQ can be purchased at http://portal.wpspublish.com/portal/page?_pageid=53,70444&_dad=portal&_schema=PORTAL. The cost is \$114.50 for 25 Test Booklets, 25 Summary Sheets, Manual, and a CD containing 13 Follow-Up Interview Guides (one for each of 13 disorders).

Schedule of Affective Disorders and Schizophrenia – Third Edition (SADS)

The SADS is a semi-structured interview designed for experienced clinicians to evaluate current and lifetime affective and psychotic disorders (Endicott & Spitzer, 1978). The instrument predates the SCID and offers specified probes for diagnostic criteria. There are two parts to the SADS, Part I (Current) and Part II (Lifetime). Part I assesses current episodes, particularly the most severe period of the current episode. The SADS examines six gradations of symptoms experienced, ranging from “not at all” to “extreme.” Part II of the SADS reviews lifetime history of symptoms and episodes of the disorders and features two gradations of symptoms experienced (“presence” or “absence”). Several alternate versions of the SADS have also been developed. For example, the SADS-L is similar to Part II of the SADS in that it provides a description of lifetime symptoms and dedicates very little time to current symptoms. The SADS-C examines changes in symptoms and the SADS-I describes symptoms experienced over particular intervals of time following an initial SADS-L interview.

Positive Features

- Overall, the SADS was found to be more effective than the DIS in diagnosing depressive disorders (Hasin & Grant, 1987)
- Inter-rater reliability is excellent for current disorders and good for past disorders

- The SADS has been translated into several foreign languages
- The instrument examines symptom severity and ancillary symptoms that are related to, but not part of formal diagnostic criteria
- Research has demonstrated the utility of the SADS within the criminal justice system (Rogers, Sewell, & Ustad, 1995; Rogers, Jackson, & Salekin, 2003)

Concerns

- The SADS was developed at the same time as the DSM-III and does not use the same terminology and classification system as the DSM-IV
- There is poor agreement between the SADS and the DIS in diagnosing depression among individuals with alcohol and drug problems (Hasin & Grant, 1987)
- The SADS has not been used extensively in criminal justice settings
- The SADS is rather lengthy and complex to administer and requires clinical judgment
- Significant training is required for administration and scoring of the SADS
- The instrument is not very sensitive to response styles, and participants can fake positive symptoms of disorders. Recent research has focused on the potential use of some SADS-C subscales to detect malingering (Rogers et al., 2003)
- The SADS provides limited breadth of coverage, with a focus on evidence of affective and psychotic disorders

Availability and Cost

Details about the SADS can be found in the following article: Endicott, J., & Spitzer, R. L. (1978). A diagnostic interview: The Schedule of Affective Disorders and Schizophrenia. *Archives of General Psychiatry*, 35, 837–844.

Structured Clinical Interview for DSM-IV (SCID)

The SCID is a semi-structured psychological assessment interview developed for administration by trained clinicians (First, Spitzer, Gibbon, & Williams, 1996). The SCID-I is one of the most widely used structured interview instruments developed to diagnose DSM disorders and is considered to be the “gold standard” for diagnostic assessment (Shear et al., 2000). The SCID-I obtains Axis I diagnoses using the DSM criteria. Standard threshold questions are provided, and the administrator may re-word questions to clarify them if necessary. The interviewer either rules out or establishes a diagnosis. The Substance Use Disorders module identifies lifetime and past 30-day diagnoses for alcohol and other drugs. In addition, the SCID-IV differentiates between substance abuse and dependence disorders. The SCID-II examines Axis-II Personality Disorders, and is published as a separate instrument.

Both a Research Version and a Clinical Version are available for the SCID-I and II. The Clinical Version is a shorter protocol (45–90 minutes) that examines disorders frequently seen in clinical settings using full diagnostic criteria (First et al., 2001) and excludes most of the subtypes, severity, and course specifiers included in the research version. Some disorders are not fully evaluated but instead are assessed briefly at the end of the SCID administration (i.e., social and specific phobia, generalized anxiety disorder, eating disorders, and hypochondriasis). The full SCID-I Research Version examines most Axis I diagnoses. The Research Version requires approximately one and a half to two hours to administer, and 10 minutes to score.

Positive Features

- Diagnoses are made according to DSM-IV or DSM-IV TR criteria
- The instrument has been used with psychiatric, medical, “normal” adults in the community, and criminal justice populations (First et al., 2001)
- SCID diagnoses have been found to be more accurate and more comprehensive than an unstructured clinical interview (Basco et al., 2000; Kranzler et al., 1995)
- Interrater reliability (Kappa) for the SCID and a chart review was .76, .61 for the SCID only, and only .45 for routine interviewing (Basco et al., 2000). Interrater reliabilities for the SCID differ depending on the disorder, with generally good reliability obtained for substance abuse and dependence disorders (Kappas of .70 and greater; Kranzler et al., 1995; Ross et al., 1995)
- Peters et al. (1998) examined use of the SCID among correctional populations using DSM-IV guidelines. Kappas were moderately high for alcohol abuse/dependence (current diagnosis, .80; lifetime diagnosis, .78) and varied considerably for drug abuse/dependence (current diagnosis, .48–1.00; lifetime diagnosis, .04–1.00), although these were generally quite high
- There are computer-assisted, clinician-administered versions of the SCID-CV, a SCID Research Version, and a shorter, computer-administered self-report screening version of the SCID. However, this latter version does not yield diagnoses, but only diagnostic impressions, that can be confirmed through use of a SCID interview or full clinical evaluation

Concerns

- The SCID was designed for use by a trained clinician at the master's or doctoral level, although in research settings it has also been used by bachelor's-level technicians with extensive training. Significant training is required for both administration and scoring of the SCID
- Administration of the SCID Axis I and Axis II batteries may require more than two hours each for individuals with multiple diagnoses. The Psychoactive Substance Use Disorders module requires 30–60 minutes when administered separately

- For persons with cognitive impairment or psychotic symptoms, the SCID may need to be administered in several sessions
- Clinical judgment is required to determine whether symptoms are present for a particular disorder
- An eighth grade reading level is required for the SCID
- The SCID provides a dichotomous decision (yes/no) regarding diagnoses, and it does not provide subthreshold diagnoses or take into account that symptoms may be experienced along a continuum

Availability and Cost

The SCID is available at cost from the American Psychiatric Publishing, Inc., 1400 Street, N.W., Washington, DC 20005, at <http://www.appi.org/group.cfm?groupid=SCID-I> or <http://www.appi.org/index.cfm>. Available materials include SCID user's guides, administration booklets, and score sheets. To obtain a Research Version of the SCID, contact Biometrics Research at (212) 960-5524.

References

- Abram K. M., & Teplin L. A. (1991). Co-occurring disorders among mentally ill jail detainees: Implications for public policy. *American Psychologist*, *46*(10), 1036-1045.
- Abram, K. M., Teplin, L. A., & McClelland, G. M. (2003). Comorbidity of severe psychiatric disorders and substance use disorders among women in jail. *American Journal of Psychiatry*, *160*(5), 1007-1010.
- Aegeerts, B., Buntix, E., Fevery, J., & Ansoms, S. (2000). Is there a difference between CAGE interviews and written CAGE questionnaires? *Alcoholism: Clinical and Experimental Research*, *24*, 733-736.
- Alterman, A. I., Snider, E. C., Cacciola, J. S., Brown, L. S., Zaballerto, A., & Siddiqui, N. (1996). Evidence for response set effects in structured research interviews. *Journal of Nervous and Mental Disease*, *184*(7), 403-410.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (DSM-IV-TR). Washington, DC: Author.
- American University. (2001). *Drug court activity update: Composite summary information, May 2001*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Drug Court Clearinghouse and Technical Assistance Project.
- Andrews, G., & Peters, L., (2003). *The CIDI-Auto: A computerized diagnostic interview for psychiatry*. Discussion paper for the WHO Collaborating Centre for Mental Health and Substance Abuse, St. Vincent's Hospital. Available at <http://www.crufad.unsw.edu.au/cidi/discuss.htm>.
- Anglin, D. M., Longshore, D., Turner, S., McBride, D., Inciardi, J., & Prendergast, M. (1999). *Studies of the functioning and effectiveness of treatment alternatives to street crime programs: Final report*. Santa Monica, CA: UCLA Drug Abuse Research Center.
- Arenth, P. M., Bogner, J. A., Corrigan, J. D., & Schmidt, L. (2001). The utility of the Substance Abuse Subtle Screening Inventory-3 for use with individuals with brain injury. *Brain Injury*, *15*, 499-510.
- Babor, T. F., Stephens, R. S., & Marlatt, G. A. (1987). Verbal report methods in clinical research on alcoholism: Response bias and its minimization. *Journal of Studies on Alcohol*, *48*, 140-424.
- Bagby, M. R., Marshall, M. B., Basso, M. R., Nicholson, R. A., Bacchioni, J., & Miller, L. (2005). Distinguishing bipolar depression, major depression, and schizophrenia with the MMPI-2 clinical and content scales. *Journal of Personality Assessment*, *84*, 89-95.
- Banks, D., & Gottfredson, D. C. (2003). The effects of drug treatment and supervision on time to rearrest among drug treatment court participants. *Journal of Drug Issues*, *3*, 385-412.
- Barthlow, D. L., Graham, J. R., Ben-Porath, Y. S., Tellegen, A., & McNulty, J. L. (2002). The appropriateness of the MMPI-2 K-correction. *Assessment*, *9*(3), 219-229.
- Basco, M. R., Bostic, J. Q., Davies, D., Rush, J., Witte, B., Hendrickse, W., et al. (2000). Methods to improve diagnostic accuracy in a community mental health setting. *American Journal of Psychiatry*, *157*, 1599-1605.

- Bastiaens, L., Riccardi, K., & Sakhrani, D. (2002). The RAAFT as a screening tool for adult substance use disorders. *The American Journal of Drug and Alcohol Abuse, 28*, 681-691.
- Beck, A. T., & Steer, R. A. (1987). *Beck Hopelessness Scale Manual*. San Antonio, TX: The Psychological Corporation.
- Beck, A. T., & Steer, R. A. (1991). *Beck Scale for Suicidal Ideation: Manual*. San Antonio, TX: The Psychological Corporation.
- Beck, A. T., Brown, G. K., & Steer, R. A. (1989). Sex differences on the revised Beck Depression Inventory for outpatients with affective disorders. *Journal of Personality Assessment, 53*, 693-702.
- Beck, A. T., Brown, M. S., & Steer, R. A. (1997). Psychometric characteristics of the scale for suicide ideation with psychiatric outpatients. *Behavior Research & Therapy, 95*, 1039-1046.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for Beck Depression Inventory-II*. San Antonio, TX: The Psychological Corporation.
- Beck, A. T., Steer, R. A., & Ranieri, W. F. (1988). Scale for Suicide Ideation: Psychometric properties of a self-report version. *Journal of Clinical Psychology, 44*, 499-505.
- Beck, A. T., Steer, R. A., & Trexler, L. D. (1989). Alcohol abuse and eventual suicide: a 5- to 10-year prospective study of alcohol-abusing suicide attempters. *Journal of Studies on Alcohol, 50*, 202-209.
- Beck, A. T., Brown, M. S., Berchick, R. J., Steward, B. L., & Steer, R. A. (1990). Relationship between hopelessness and ultimate suicide: A replication with psychiatric outpatients. *American Journal of Psychiatry, 147*, 190-195.
- Belenko, S., Peugh, J., Califano, J. A., Jr., Usdansky, M., & Foster, S. E. (1998). Substance abuse and the prison population: A three-year study by Columbia University reveals widespread substance abuse among offender population. *Corrections Today, 60*(6), 82-90.
- Bellack, A. S., Bennett, M. E., & Gearon, J. S. (2007). *Behavioral treatment for substance abuse in people with serious and persistent mental illness: A handbook for mental health professionals*. New York, NY: Routledge Press.
- Bernadt, M. W., Mumford, J., & Murray, R. M. (1984). A discriminant-function analysis of screening tests for excessive drinking and alcoholism. *Journal of Studies on Alcohol, 45*(1), 81-86.
- Buclens, J., & Aelgeerts, B. (2004). Screening for alcohol abuse and dependence in older people using DSM criteria: A review. *Aging and Mental Health, 8*, 76-82.
- Bisson, J., Nadeau, L., & Demers, A. (1999). The validity of the CAGE scale to screen for heavy drinking and drinking problems in a general population survey. *Addiction, 94*(5), 715-722.
- Black, D. W., Arndt, S., Hale, N., & Rogerson, R. (2004). Use of the Mini International Neuropsychiatric Interview (MINI) as a screening tool in prisons: Results of a preliminary study. *The Journal of the American Academy of Psychiatry and the Law, 32*(2), 158-162.
- Blanchard, K. A., Morgenstern, J., Morgan, T. J., Labouvie, E., & Bux, D. A. (2003). Motivational subtypes and continuous measures of readiness for change: Concurrent and predictive validity. *Psychology of Addictive Behaviors, 17*(1), 56-65.
- Blouin, A. G., Perez, E. L., & Blouin, J. H. (1988). Computerized administration of the Diagnostic Interview Schedule. *Psychiatry Research, 23*(3), 335-344.
- Bohn, M. S., Babor, T. F., & Kramzler, H. R. (1995). The alcohol use disorders identification test (AUDIT): Validation of a screening instrument for use in medical settings. *Journal of Studies on Alcohol, 56*(4), 423-432.

- Boone, D. (1998). Internal consistency reliability of the Personality Assessment Inventory with psychiatric inpatients. *Journal of Clinical Psychology, 54*, 839-843.
- Boyd, M. & Hauenstein, E. (1997). Psychiatric assessment and establishment of dual disorders in rural substance abusing women. *Archives of Psychiatric Nursing, 11*(2), 74-81.
- Bradley, K. A., Boyd-Wickizer, J., Powell, S. H., & Burman, M. L. (1998). Alcohol screening questionnaires in women: A critical review. *Journal of the American Medical Association, 280*, 166-171.
- Bradley, K. A., Bush, K. R., McDonnell, M. B., Malone, T., & Fihn, S. D. (1998). Screening for problem drinking: Comparison of the CAGE and AUDIT. *Journal of General Internal Medicine, 13*, 379-388.
- Bradley, K. A., Kivlahan, D. R., Bush, K. R., McDonnell, M. B., & Fihn, S. D. (2001). Variations on the CAGE alcohol screening questionnaire: Strengths and limitations in VA general medical patients. *Alcoholism: Clinical and Experimental Research, 25*, 1472-1478.
- Breakey, W. R., Calabrese, L., Rosenblatt, A., & Crum, R. M. (1998). Detecting alcohol use disorders in the severely mentally ill. *Community Mental Health Journal, 34*(12), 165-174.
- Brier, J. (1995). *Trauma Symptom Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Brodey, B. B., Rosen, C. S., Brodey, I. S., Sheetz, B. M., Steinfeld, R. R., & Gastfriend, D. R. (2004). Validation of the Addiction Severity Index (ASI) for internet and automated telephone self-report administration. *Journal of Substance Abuse Treatment, 26*, 253-259.
- Broner, N., Maryl, D. W., & Landsberg, G. (2005). Outcomes of mandated and non-mandated New York City jail diversion for offenders with alcohol, drug and mental disorders. *The Prison Journal, 85*, 18-40.
- Broome, K. M., Knight, K., Joe, G. W., & Simpson, D. D. (1996). Evaluating the drug-abusing probationer: Clinical interview versus self-administered assessment. *Criminal Justice and Behavior, 23*(4), 593-606.
- Buckley, T. C., Parker, J. D., & Heggie, J. (2001). A psychometric evaluation of the BDI-II in treatment-seeking substance abusers. *Journal of Substance Abuse Treatment, 20*(3), 197-204.
- Bureau of Justice Assistance. (1999). *Integrating drug testing into a pretrial services system: 1999 update* (Publication No. NCJ 176340). Washington, DC: Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice.
- Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Manual for the restandardized Minnesota Multiphasic Personality Inventory: MMPI—2. An administrative and interpretive guide*. Minneapolis, MN: University of Minnesota Press.
- Callaghan, R. C., Hathaway, A., Cunningham, J. A., Vettese, L. C., Wyatt, S., & Taylor, L. (2005). Does stage-of-change predict dropout in a culturally diverse sample of adolescents admitted to inpatient substance-abuse treatment? A test of the transtheoretical model. *Addictive Behaviors, 30*(9), 1834-1847.
- Calsyn, D., Saxon, A., & Daisy, F. (1990). Validity of the MCMI Drug Abuse Scale with drug abusing and psychiatric samples. *Journal of Clinical Psychology, 46*(2), 244-246.
- Carey, B. C., Purine, D. M., Maisto, S. A., & Carey, M. P. (1999). Assessing readiness to change substance abuse: A critical review of instruments. *Clinical Psychology: Science and Practice, 6*(3), 245-266.
- Carey, K. B. (1997). Reliability and validity of the time-line follow-back interview among psychiatric outpatients: A preliminary report. *Psychology of Addictive Behaviors, 11*, 26-33.

- Carey, K. B., Carey, M. P., & Chandra, P. S. (2003). Psychometric evaluation of the Alcohol Use Disorders Identification Test and Short Drug Abuse Screening Test with psychiatric patients in India. *Journal of Clinical Psychiatry*, *64*, 767-774.
- Carroll, J. F., & McGinley, J. J. (2001). A screening form for identifying mental health problems in alcohol/other drug dependent persons. *Alcoholism Treatment Quarterly*, *19*(4), 33-47.
- Center for Substance Abuse Treatment. (1994). *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases: Treatment Improvement Protocol (TIP) series 11*. Rockville, MD: U.S. Department of Health and Human Services.
- Center for Substance Abuse Treatment. (2005a). *Substance abuse treatment for persons with co-occurring disorders: Treatment Improvement Protocol (TIP) series 42* (DHHS Publication No. SMA 05-3922). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Center for Substance Abuse Treatment. (2005b). *Substance abuse treatment for adults in the criminal justice system: Treatment Improvement Protocol (TIP) series 44* (DHHS Publication No. SMA 05-4056). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Center for Substance Abuse Treatment. (2006). *Screening, assessment, and treatment planning for persons with co-occurring disorders: COCE overview paper #2* (CHHS Publication No. SMA 06-4164). Rockville, MD: Substance Abuse and Mental Health Services Administration, and Center for Mental Health Services.
- Centers for Disease Control and Prevention. (2008). *Suicide prevention scientific information: Risk and protective factors*. Available at <http://www.cdc.gov/ncipc/dvp/Suicide/Suicide-risk-p-factors.htm>
- Chandler, R., Peters, R., Field, G., & Juliano-Bult, D. (2004). Challenges in implementing evidence-based treatment practices for co-occurring disorders in the criminal justice system. *Behavioral Sciences and the Law*, *22*(4), 431-448.
- Chan-Pensley, E. (1999). Alcohol-Use Disorders Identification Test: A comparison between paper and pencil and computerized versions. *Alcohol and Alcoholism*, *34*, 882-885.
- Chantarujikapong, S. I., Smith, E. M., & Fox, L. W. (1997). Comparison of the Alcohol Dependence Scale and Diagnostic Interview Schedule in homeless women. *Alcoholism: Clinical and Experimental Research*, *21*, 586-595.
- Charter, R. A., & Lopez, M. N. (2002). Million Clinical Multiaxial Inventory (MCMI-III): The inability of the validity conditions to detect random responders. *Journal of Clinical Psychology*, *58*(12), 1615-1617.
- Cherpitel, C. J. (1998). Differences in performance of screening instruments for problem drinking among Blacks, Whites, and Hispanics in an emergency room population. *Journal of Studies on Alcohol*, *59*(4), 420-426.
- Cherpitel, C. J. (2002). Screening for alcohol problems in the U.S. general population: Comparison of the CAGE, RAPS4, and RAPS4-QF by gender, ethnicity, and service utilization. *Alcoholism: Clinical and Experimental Research*, *26*, 1686-1691.
- Chiles, J. A., Cleve, E. V., Jemelka, R. P., & Trupin, E. W. (1990). Substance abuse and psychiatric disorders in prison inmates. *Hospital & Community Psychiatry*, *41*(10), 1132-1134.
- Chow, J. C., Snowden, L. R., & McConnell, W. A. (2001). Confirmatory factor analysis of the BASIS-32 in racial and ethnic samples. *Journal of Behavioral Health Services Research*, *28*(4), 400-411.
- Chung, T., Colby, S. M., Barnett, N. P., & Monti, P. M. (2002). Alcohol Use Disorders Identification Test: Factor structure in an adolescent emergency department sample. *Alcoholism: Clinical and Experimental Research*, *26*, 223-231.

- Clark, J. W., & Henry, D. A. (2003). *Pretrial services programming at the start of the 21st century: A survey of pretrial services programs*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance.
- Clarke, J., & Wilson, J. F. (2005). Proficiency testing (external quality assessment) of drug detection in oral fluid. *Forensic Science International, 150*, 161-164.
- Clements, R. (2002). Psychometric properties of the Substance Abuse Subtle Screening Inventory-3. *Journal of Substance Abuse Treatment, 23*, 419-423.
- Cocco, K. M., & Carey, K. B. (1998). Psychometric properties of the Drug Abuse Screening Test in psychiatric outpatients. *Addiction, 94*(2), 269-281.
- Cochrane-Brink, K. A., Lofchy, J. S., & Sakinofsky, I. (2000). Clinical rating scales in suicide risk assessment. *General Hospital Psychiatry, 22*(6), 445-451.
- Comtois, K. A., Ries, R., & Armstrong, H. E. (1994). Case manager ratings of the clinical status of dually diagnosed outpatients. *Hospital and Community Psychiatry, 45*(6), 568-573.
- Conley, T. B. (2001). Construct validity of the MAST and AUDIT with multiple offender drunk drivers. *Journal of Substance Abuse and Treatment, 20*, 287-295.
- Corse, S. J., Hirschinger, N. B., & Zanis, D. (1995). The use of the Addiction Severity Index with people with severe mental illness. *Psychiatric Rehabilitation Journal, 19*(1), 9-18.
- Craig, R. J. (1997). Sensitivity of MCMI-III Scales T (drugs) and B (alcohol) in detecting substance abuse. *Substance Use and Misuse, 32*(10), 1385-1393.
- Creamer, M., Bell, R., & Failla, S. (2003). Psychometric properties of the impact of event scale - Revised. *Behavior Research & Therapy, 41*(12), 1489-1496.
- Crouch, D. J., Day, J., Baudys, J., & Fatah, A. A. (2005). *Evaluation of saliva/oral fluids an alternate drug testing specimen* (NCJRS Document No. 203569). Rockville, MD: U.S. Department of Justice.
- Davidson, S., & Taylor, P. J. (2001). Psychological distress and severity of personality disorder symptomatology in prisoners convicted of violent and sexual offences. *Psychology, Crime and Law, 7*(3), 263-273.
- Dawe, S., Seinen, A., & Kavanagh, D. (2000). An examination of the utility of the AUDIT in people with schizophrenia. *Journal of Studies on Alcohol, 61*(5), 744-750.
- Dawson, D. A., Grant, B. F., Stinson, F. S., & Zhou, Y. (2005). Effectiveness of the Derived Alcohol Use Disorders Identification Test (AUDIT-C) in screening for alcohol use disorders and risk drinking in the U.S. general population. *Alcoholism: Clinical and Experimental Research, 29*, 844-854.
- De Jong C., & Wish, E. D. (2000). Is it advisable to urine test arrestees to assess risk of re-arrest? A comparison of self-report and urinalysis-based measures of drug-use. *Journal of Drug Issues, 30*(10), 133-146.
- Del Boca, F. K., & Darkes, J. (2003). The validity of self-reports of alcohol consumption: State of the science and challenges for research. *Addiction, 98*(S2), 1-12.
- DeLeon, G., & Jainchill, N. (1986). Circumstance, motivation, readiness and suitability as correlates of treatment tenure. *Journal of Psychoactive Drugs, 18*(3), 203-208.
- DeLeon, G., Melnick, G., Kressel, D., & Jainchill, N. (1994). Circumstances, Motivation, Readiness, and Suitability (the CMRS Scales): Predicting retention in therapeutic community treatment. *American Journal of Drug and Alcohol Abuse, 20*(4), 495-515.
- DeLeon, G., Melnick, G., Thomas, G., Kressel, D., & Wexler, H. K. (2000). Motivation for treatment in prison-based therapeutic community. *American Journal of Alcohol and Drug Abuse, 26*(1), 33-46.

- Demmel, R., Beck, B., Richter, D., & Reker, T. (2004). Readiness to change in a clinical sample of problem drinkers: Relation to alcohol use, self-efficacy, and treatment outcome. *European Addiction Research, 10*(3), 133-138.
- Dennis, M. L., White, M., Titus, J. C., & Unsicker, J. (2006). *Global Appraisal of Individual Needs: Administration guide for the GAIN and related measures* (Version 5). Bloomington, IL: Chestnut Health Systems.
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine, 13*, 595-605.
- Derogatis, L. R., Lipman, R., & Rickels, K. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science, 19*, 1-16.
- Derogatis, L.R., Melisaratos, N., Rickels, K., & Rock, A. (1976). The SCL-90 and the MMPI: A step in the validation of a new self-report scale. *British Journal of Psychiatry, 128*, 280-289.
- DiClemente, C. C., & Hughes, S. O. (1990). Stages of change profiles in outpatient alcoholism treatment. *Journal of Substance Abuse, 2*, 217-235.
- DiClemente, C. C., & Prochaska, J. O. (1982). Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behaviors, 7*, 133-142.
- DiClemente, C. C., & Prochaska J. O. (1985). Processes and stages of self-change: Coping and competence in smoking behavior change. In S. Shiffman & T. A. Wills (Eds.), *Coping and Substance Use* (pp. 319-342). San Diego, CA: Academic Press.
- DiClemente, C. C., Schlundt, D., & Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *American Journal on Addictions, 13*(2), 130-119.
- Ditton, P. M. (1999). *Mental health and treatment of inmates and probationers* (Publication No. NCJ 174463). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Douglas, K. S., Hart, S. D., & Kropp, P. R. (2001). Validity of the Personality Assessment Inventory for forensic assessments. *International Journal of Offender Therapy and Comparative Criminology, 45*, 183-197.
- Drake, R. E., & Mercer-McFadden, C. (1995). Assessment of substance use among persons with chronic mental illnesses. In A. F. Lehman & L. B. Dixon (Eds.), *Double jeopardy: Chronic mental illness and substance use disorders* (pp. 47-62). Chur, Switzerland: Harwood Academic Publishers.
- Drake, R. E., Alterman, A. I., & Rosenberg, S. R. (1993). Detection of substance use disorders in severely mentally ill patients. *Community Mental Health, 29*(2), 175-192.
- Drake, R. E., Mercer-McFadden, C., Mueser, K. T., McHugo, G. J., & Bond, G. R. (1998). A review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin, 24*(4), 589-608.
- Drake, R. E., Osher, F. C., Noordsy, D. L., Hurlbut, S. C., Teague, G. B., & Beaudett, M. S. (1990). Diagnosis of alcohol use disorders in schizophrenia. *Schizophrenia Bulletin, 16*(1), 57-67.
- Drake, R. E., Rosenberg, S. D., & Mueser, K. T. (1996). Assessing substance use disorder in persons with severe mental illness. In R. E. Drake & K. T. Mueser (Eds.), *Dual diagnosis of major mental illness and substance abuse, Vol. 2: Recent research and clinical implications* (pp. 3-17). San Francisco, CA: Jossey-Bass.

- Edens, J. F., & Ruiz, M. A. (2006). On the validity of validity scales: The importance of defensive responding in the prediction of institutional misconduct. *Psychological Assessment, 18*, 220-224.
- Edens, J. F., & Willoughby, F. W. (1999). Motivational profiles of polysubstance-dependent patients: Do they differ from alcohol-dependent patients? *Addictive Behaviors, 24*(2), 195-206.
- Edens, J. F., & Willoughby, F. W. (2000). Motivational patterns of alcohol dependent patients: A replication. *Psychology of Addictive Behaviors, 14*, 397-400.
- Edens, J. F., Peters, R. H., & Hills, H. A. (1997). Treating prison inmates with co-occurring disorders: An integrative review of existing programs. *Behavioral Sciences and the Law, 15*(4), 439-457.
- Eisen, S. V., Dickey, B., & Sederer, L. I. (2000). A self-report symptom and problem rating scale to increase inpatients' involvement in treatment. *Psychiatric Services, 51*(3), 349-353.
- Eisen S. V., Normand, S. L., Belanger, A. J., Spiro, A., & Esch, D. (2004). The Revised Behavior and Symptom Identification Scale (BASIS-R): Reliability and validity. *Medical Care, 42*(12), 1230-41.
- Endicott, J., & Spitzer, R. L. (1978). A diagnostic interview: The schedule of affective disorders and schizophrenia. *Archives of General Psychiatry, 35*, 837-844.
- Figlie, N. B., Dunn, J., & Laranjeira, R. (2005). Motivation for change in alcohol dependent outpatients from Brazil. *Addictive Behaviors, 30*, 159-165.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. (2001). *Users guide for the Structured Clinical Interview for DSM-IV-TR Axis I Disorders - Research version*. New York, NY: Biometrics Research Department.
- Franken, I. H. A., & Hendriks V. M. (2001). Screening and diagnosis of anxiety and mood disorders in substance abuse patients. *American Journal on Addictions, 101*, 30-39.
- Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress. *Australian National Survey of Mental Health and Well-Being Psychological Medicine, 33*, 357-362.
- Gilliard, D. K. & Beck, A. J. (1994). Prisoners in 1993 (Publication No. NCJ 156241). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Glaze, L. E., & Bonczar, T. P. (2006). *Probation and parole in the United States, 2005* (Publication No. NCJ 215091). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Goethe, J. W., & Fisher, E. H. (1995). Validity of the diagnostic interview schedule for detecting alcoholism in psychiatric inpatients. *American Journal of Drug and Alcohol Abuse, 21*(4), 565-571.
- Goldstein, P. (1986). The drugs-violence nexus: A tripartite conceptual framework. *Journal of Drug Issues, 15*, 493-506.
- Goss, J. R., Peterson, K., Smith, L. W., Kalb, K., & Brodey, B. B. (2002). Characteristics of suicide attempts in a large urban jail system with an established suicide prevention program. *Psychiatric Services, 53*, 574-579.
- Gottsfredson, D. C., Najaka, S. S., Kearley, B. W., & Rocha, C. M. (2006). Long-term effects of participation in the Baltimore City drug treatment court: Results from an experimental study. *Journal of Experimental Criminology, 2*, 67-98.
- Graham, J. R. (2006). *MMPI-2 Assessing Personality and Psychopathology*. New York, NY: Oxford University Press, Inc.

- Gray, B. T. (2001). A factor analytic study of the Substance Abuse Subtle Screening Inventory (SASSI). *Educational and Psychological Measurement, 61*(1), 102-118.
- Gray, T. A., & Wish, E. D. (1999). Correlates of underreporting recent drug use by female arrestees. *Journal of Drug Issues, 29*(1), 91-106.
- Greenfeld, L. A., & Snell, T. L. (1999). *Women offenders* (Publication No. NCJ 175688). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Gresnigt, J. A. M., Breteler, M. H. M., Schippers, G. M., & Van den Hurk, A. A. (2000). Predicting violent crime among drug-using inmates: The Addiction Severity Index as a prediction instrument. *Legal and Criminological Psychology, 5*, 83-95.
- Grothe, K. B., Dutton, G. R., Jones, G. N., Bodenlos, J., Ancona, M., & Brantley, P. J. (2005). Validation of the Beck Depression Inventory-II in a low-income African American sample of medical outpatients. *Psychological Assessment, 17*(1), 110-114.
- Harrell, A., & Kleiman, M. (2001). Drug testing in criminal justice settings. In C. Leukefeld & F. Tims (Eds.), *Clinical and Policy Responses to Drug Offenders. Policies and Issues*. New York, NY: Springer Publishing Co.
- Harrison, L. (1997). The validity of self-reported drug use in survey research: An overview and critique of research methods. In L. Harrison and A. Hughes (Eds.), *The validity of self-reported drug use: Improving the accuracy of survey estimates* (Publication No. NIH 97-4171). Rockville, MD: National Institute on Drug Abuse.
- Harrison, P. M., & Beck, A. J. (2006). *Prison and jail inmates at midyear 2005* (Publication No. NCJ 213133). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Hasin, D. S., & Grant, B. F. (1987). Assessment of specific drug disorders in a sample of substance abuse patients: A comparison of the DIS and the SADS-L procedures. *Drug and Alcohol Dependence, 19*, 165-176.
- Hasin, D. S., Samet, S., Nunes, E. M. J., Mateseoane, K., & Waxman, R. (2006). Diagnosis of comorbid disorders in substance users: Psychiatric Research Interview for Substance and Mental Disorders (PRISM-IV). *American Journal of Psychiatry, 163*, 689-696.
- Hathaway, S. R., & McKinley, J. C. (1951). *Minnesota Multiphasic Personality Inventory*. New York, NY: Psychological Corporation.
- Hathaway S. R., & McKinley, J. C. (1967). *Minnesota Multiphasic Personality Inventory Manual: Revised edition*. New York, NY: Psychological Corporation.
- Hathaway, S. R., & McKinley, J. C. (1989). *Minnesota Multiphasic Personality Inventory-2*. Minneapolis, MN: University of Minnesota Press.
- Hays, R. D., & Ellickson, P. L. (2001). Comparison of the ROST and the CAGE alcohol screening instruments in young adults. *Substance Use & Misuse, 36*, 639-651.
- Henry, D. A., & Clark, J. (1999). *Pretrial drug testing: An overview of issues and practices*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance.
- Hesselbrock, M. N., Hesselbrock, V. M., Tennen, H., Meyer, R. E., & Workman, K. L. (1983). Methodological considerations in the assessment of depression in alcoholics. *Journal of Consulting and Clinical Psychology, 51*, 399-405.
- Hienz, P. M., Preto, N. G., McGoldrick, M., Almeida, R., & Weltman, S. (1999). Culture and the family life cycle. In M. McGoldrick & M. McGoldrick (Eds.), *The expanded family life cycle: Individual, family and social perspective* (pp. 69-87). Boston, MA: Allyn and Bacon.

- Hiller, M. L., Knight, K., Broome, K. M., & Simpson, D. D. (1996). Compulsory community-based substance abuse treatment and the mentally ill criminal offender. *The Prison Journal*, 76(2), 180-191.
- Hills, H. A., Siegfried, C., & Ickowitz, A. (2004). *Effective prison mental health services: Guidelines to expand and improve treatment*. Washington, DC: Department of Justice, National Institute of Corrections.
- Hodgins, D. C., & Lightfoot, L. O. (1989). The use of the Alcohol Dependence Scale with incarcerated male offenders. *International Journal of Offender Therapy and Comparative Criminology*, 33(1), 59-67.
- Hoffmann, N. G., Halikas, J. A., Mee-Lee, D., & Weedman, R. D. (1991). *Patient placement criteria for the treatment of psychoactive substance use disorders*. Washington, DC: American Society of Addiction Medicine.
- Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of events scale: A measure of subjective stress. *Psychosomatic Medicine*, 41(3), 209-219.
- Horrigan, T. J., & Piazza, N. (1999). The Substance Abuse Subtle Screening Inventory minimizes the need for toxicology screening of prenatal patients. *Journal of Substance Abuse Treatment*, 17, 243-247.
- Houck, K. D., & Loper, A. B. (2002). The relationship of parenting stress to adjustment among mothers in prison. *American Journal of Orthopsychiatry*, 72(4), 548-558.
- Inciardi, J. A., Martin, S. S., Butzin, C. A., Hooper, R. M., & Harrison, L. D. (1997). An effective model of prison-based treatment for drug-involved offenders. *Journal of Drug Issues*, 27, 261-278.
- Ivanoff, A., Jang, S. J., Smyth, N. F., & Linehan, M. M. (1994). Fewer reasons for staying alive when you are thinking of killing yourself: The Brief Reasons for Living Inventory. *Journal of Psychopathology and Behavioral Assessment*, 16(1), 1-13.
- James, D. J., & Glaze, L. E. (2006). *Mental health problems of prison and jail inmates* (Publication No. NCJ 213600). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Jordan, B. K., Schlenger, W. E., Fairbank, J. A., & Caddell, J. M. (1996). Prevalence of psychiatric disorders among incarcerated women. II. Convicted felons entering prison. *Archives of General Psychiatry*, 53(6), 513-519.
- Kahler, C. W., Strong, D. R., Stuart, G. L., Moore, T. M., & Ramsey, S. E. (2003). Item functioning of the alcohol dependence scale in a high-risk sample. *Drug and Alcohol Dependence*, 72, 183-192.
- Kelly, T. M., Donovan, J. E., Kinnane, J. M., & Taylor, D. M. (2002). A comparison of alcohol screening instruments among under-aged drinkers treated in emergency departments. *Alcohol & Alcoholism*, 37, 444-450.
- Kessler, R. C., & Ustun, T. B. (2004). The World Mental Health (WMH) survey initiative version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *International Journal of Methods in Psychiatric Research*, 13, 93-121.
- Kessler, R. C., Andrews, G., Colpe, L., Hiripi, E., Mroczek, D. K., Normand, S. L., et al. (2002). Short screening scales to monitor population prevalences and trends in nonspecific psychological distress. *Psychological Medicine*, 32, 959-976.
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., et al. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, 60(2), 184-189.

- Kessler, R. C., Wittchen, H. U., Abelson, J. M., McGonagle, K. A., Schwarz, N., Kendler, K. S., et al. (1998). Methodological studies of the Composite International Diagnostic Interview (CIDI) in the U.S. National Comorbidity Survey. *International Journal of Methods in Psychiatric Research*, 7(1), 33-55.
- Kintz, P., Villain, M., & Cirimele, V. (2006). Hair analysis for drug detection. *Therapeutic Drug Monitoring*, 28(3), 442-446.
- Knight, J. R., Goodman, E., Pulerwitz, T., & DuRant, R. H. (2000). Reliabilities of short substance abuse screening tests among adolescent medical patients. *Pediatrics*, 105(4), 948-953.
- Knight, J. R., Sherritt, L., Harris, S. K., Gates, E. C., & Chang, G. (2003). Validity of brief alcohol screening tests among adolescents: A comparison of the AUDIT, POSIT, CAGE, and CRAFFT. *Alcoholism: Clinical and Experimental Research*, 27, 67-73.
- Knight, K., Simpson, D. D., & Hiller, M. L. (2002). Screening and referral for substance-abuse treatment in the criminal justice system. In C. G. Leukefeld, F. Tims, & D. Farabee (Eds.), *Treatment of drug offenders: Policies and issues* (pp. 259-272). New York, NY: Springer Publishing.
- Knight, K., Simpson, D. D., & Morey, J. T. (2002). *An evaluation of the TCU Drug Screen. Research report submitted to the U.S. Department of Justice*. Rockville, MD: National Criminal Justice Reference Service.
- Knight, K., Hiller, M., Simpson, D. D., & Broome, K. M. (1998). The validity of self-reported cocaine use in a criminal justice treatment sample. *American Journal of Drug and Alcohol Abuse*, 24(4), 647-660.
- Kofoed, L., Dania, J., Walsh, T., & Atkinson, R. M. (1986). Outpatient treatment of patients with substance abuse and coexisting psychiatric disorders. *American Journal of Psychiatry*, 14, 867-872.
- Kosten, T. R., & Kleber, H. D. (1988). Differential diagnosis of psychiatric comorbidity in substance abusers. *Journal of Substance Abuse Treatment*, 5, 201-206.
- Kranzler, H. R., Kadden, R., Burleson, J. A., Babor, T. F., Apter, A., & Rounsaville, B. J. (1995). Validity of psychiatric diagnoses in patients with substance use disorders: Is the interview more important than the interviewer? *Comprehensive Psychiatry*, 36, 278-288.
- Lamb, H. R., Weinberger, L. E., & Gross, B. H. (2004). Mentally ill persons in the criminal justice system: Some perspectives. *Psychiatric Quarterly*, 75(2), 107-126.
- Landry, M., Brochu, S., & Bergeron, J. (2003). Validity and relevance of self-report data provided by criminalized addicted persons in treatment. *Addiction Research and Theory*, 11(6), 415-426.
- Laux, J. M., Perera-Diltz, D., Smirnoff, J. B., & Salyers, K. M. (2005). The SASSI-3 face valid other drugs scale: A psychometric investigation. *Journal of Addictions*, 26, 15-22.
- Laux, J. M., Salyers, K. M., & Katova, E. (2005). A psychometric evaluation of the SASSI-3 in a college sample. *Journal of College Counseling*, 8, 41-51.
- Lazowski, L. E., Miller, F. G., Boye, M. W., & Miller, G. A. (1998). Efficacy of the Substance Abuse Subtle Screening Inventory-3 (SASSI-3) in identifying substance dependence disorders in clinical settings. *Journal of Personality Assessment*, 71, 114-128.
- Lehman, A. F. (1996). Heterogeneity of person and place: Assessing co-occurring addictive and mental disorders. *American Journal of Orthopsychiatry*, 66(1), 32-41.
- Lehman, A. F., & Dixon, L. B. (Eds.). (1995). *Double jeopardy: Chronic mental illness and substance use disorders*. Chur, Switzerland: Harwood Academic Publishers.

- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: The Reasons for Living Inventory. *Journal of Consulting and Clinical Psychology, 51*(2), 276-286.
- Lo, C. C. (2004). Sociodemographic factors, drug abuse, and other crimes: How they vary among male and female arrestees. *Journal of Criminal Justice, 32*, 399– 409.
- Long, M., & Kidwell, D. A. (2002). *Final report - Improving the Pharmcheck™ Sweat Patch: Reducing false positives from environmental contamination and increasing drug detection*. Washington, DC: U.S. Department of Justice.
- Lu, N. T., Taylor, B. G., & Riley, K. J. (2001). The validity of adult arrestee self-reports of crack cocaine use. *American Journal of Drug and Alcohol Abuse, 27*(3), 399-419.
- Maggia, B., Martin, S., Crouzet, C., Richard, P., Wagner, P., Balmès, J., et al. (2004). Variation in AUDIT (Alcohol Use Disorder Identification Test) scores within the first weeks of imprisonment. *Alcohol, 39*, 247–250.
- Magura, S., & Kang, S. Y. (1997). The validity of self-reported cocaine use in two high risk populations: A meta-analytic review. *Substance Use and Misuse, 31*(9), 1131-1153.
- Maisto, S. A., & Saitz, R. (2003). Alcohol use disorders: Screening and diagnosis. *The American Journal on Addictions, 12*(S1), S12-S25.
- Maistro, S. A., Carey, M. P., Carey, K. B., Gordon, C. M., & Gleason, J. R. (2000a). Use of the AUDIT and the DAST-10 to identify alcohol and drug use disorders among adults with severe and persistent mental illness. *Psychological Assessment, 12*, 186-192.
- Maistro, S. A., Conigliaro, J., McNeil, M., Kraemer, K., & Kelley, M. E. (2000b). An empirical investigation of the factor structure of the AUDIT. *Psychological Assessment, 12*, 346-353.
- Marlowe, D. B. (2003). Integrating substance abuse treatment and criminal justice supervision. *Science and Practice Perspectives, 24*, 4-14.
- Martino, S., Grilo, C. M., & Fehon, D. C. (2000). Development of the Drug Abuse Screening Test for Adolescents (DAST-A). *Addictive Behaviors, 25*, 57-70.
- Matano, R. A., Kroopman, C., Wanat, S. F., Whitsell, S. D., Borggreffe, A., & Westrup, D. (2003). Assessment of binge drinking of alcohol in highly educated employees. *Addictive Behaviors, 28*, 1299-1310.
- Mayfield, D., McCleod, G., & Hall, P. (1974). The CAGE questionnaire: Validation of a new alcoholism screening questionnaire. *American Journal of Psychiatry, 131*, 1121-1123.
- McCann, B. S., Simpson, T. L., Ries, R., & Roy-Byrne, P. (2000). Reliability and validity of screening instruments for drug and alcohol abuse in adults seeking evaluation for attention-deficit/hyperactivity disorder. *The American Journal on Addictions, 9*, 1-9.
- McCloud, A., Barnaby, B., Omu, N., Drummond, C., & Aboud, A. (2004). Relationship between alcohol use disorders and suicidality in a psychiatric population. *British Journal of Psychiatry, 184*, 439-445.
- McConaughy, E. A., Prochaska, J., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research, and Practice, 20*, 368-375.
- McHugo, G., Paskus, T. S., & Drake, R. E. (1993). Detection of alcoholism in schizophrenia using the MAST. *Alcoholism: Clinical and Experimental Research, 14*(1), 187-191.
- McHugo, G. J., Drake, R. E., Burton, H. L., & Ackerson, T. H. (1995). A scale for assessing the stage of substance abuse treatment in persons with severe mental illness. *Journal of Nervous and Mental Disease, 183*, 762–767.

- McLellan, A. T., Cacciola, J. S., & Alterman, A. I. (2004). Commentaries on Mäkelä: The ASI as a still developing instrument: Response to Mäkelä. *Addiction, 99*, 411-412.
- McLellan, A. T., Kushner, H., Metzger, D., Peters, R. H., Smith, I., Grissom, G., et al. (1992). The Fifth Edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment, 9*, 199-213.
- McLellan, A. T., Luborsky, L., Cacciola, J., Griffith, J., Evans, F., Barr, H. L., et al. (1985). New data from the Addiction Severity Index: Reliability and validity in three centers. *Journal of Nervous and Mental Disease, 173*, 412-423.
- McLellan, A. T., Luborsky, L., Woody, G. E., & O'Brien, C. P. (1980). An improved diagnostic evaluation instrument for substance abuse patients: The Addiction Severity Index. *Journal of Mental and Nervous Disease, 168*(1), 26-33.
- Mee-Lee, D., Shulman, M. A., Fishman, F., Gastfriend, D. R., & Griffith, J. H. (2001). *ASAM Patient Placement Criteria for the Treatment of Substance-Related Disorders: Second Edition-Revised*. Chevy Chase, MD: American Society of Addiction Medicine.
- Megargee, E. I., & Bohn, M. J. (1979). *Classifying criminal offenders*. Beverly Hills, CA: Sage Publications.
- Megargee, E. I., & Carbonell, J. L. (1995). Use of the MMPI-2 in correctional settings. In Y. S. Ben-Porath, J. R. Graham, G. C. N. Hall, R. Hirschman, & M. Zaragoza (Eds.), *Forensic applications of the MMPI-2* (pp. 127-159). Thousand Oaks, CA: Sage Publications.
- Melnick, G., DeLeon, G., Hawke, J., Jainchill, N., & Kressel, D. (1997). Motivation and readiness for therapeutic community treatment among adolescents and adult substance abusers. *American Journal of Drug and Alcohol Abuse, 23*(4), 485-522.
- Melnick, G., DeLeon, G., Thomas, G., Kressel, D., & Wexler, H. K. (2001). Treatment process in prison therapeutic communities: Motivation, participation, and outcome. *American Journal of Drug and Alcohol Abuse, 27*(4), 633-650.
- Meyers, J. E., Millis, S. R., & Volkert, K. (2002). A validity index for the MMPI-2. *Archives of Clinical Neuropsychology, 17*, 157-169.
- Mieczkowski, T. (1990). The accuracy of self-reported drug use: An analysis of new data. In R. Weisheit (Ed.), *Drugs, crime and the criminal justice system*. Cincinnati, OH: Anderson Publishing.
- Miller, G. A. (1985). *The Substance Abuse Subtle Screening Inventory (SASSI) Manual*. Bloomington, IN: SASSI Institute.
- Millon, T. (1983). *Millon Clinical Multiaxial Inventory: Third edition*. Minneapolis, MN: Interpretive Scoring Systems.
- Millon, T. (1997). *Millon Clinical Multiaxial Inventory manual: Second edition*. Minneapolis, MN: National Computer Systems.
- Mischke, D., & Venneri, R. L. (1987). Reliability and validity of the MAST, Mortimer-Filkins Questionnaire and CAGE in DWI assessment. *Journal of Studies on Alcohol, 48*, 492-501.
- Mitchell, D., Francis, J. P., & Tafrate, R. C. (2005). The psychometric properties of the stages of change readiness and treatment eagerness scale (SOCRATES) in a clinical sample of active duty military service members. *Military Medicine, 170*(11), 960-963.
- Moore, A. A., Beck, J. C., & Babor, T. F. (2002). Beyond alcoholism: Identifying older, at-risk drinkers in primary care. *Journal of Studies on Alcohol, 63*, 316-324.
- Moore, A. A., Seeman, T., Morgenstern, H., Beck, J. C., & Reuben, D. B. (2002). Are there differences between older persons who screen positive on the CAGE questionnaire and the Short Michigan Alcoholism Screening Test-Geriatric version? *Journal of the American Geriatric Society, 50*, 858-862.

- Moore, G. E., & Mears, D. P. (2003). *A meeting of the minds: Researchers and practitioners discuss key issues in corrections-based drug treatment*. Washington, DC: Urban Institute, Justice Policy Center.
- Morey, L. C. (1991). *The Personality Assessment Inventory: Professional Manual*. Odessa, FL: Personality Assessment Resources.
- Morey, L. C. (1998). Teaching and learning the Personality Assessment Inventory. In L. Handler & M. Hilsenroth (Eds.), *Teaching and Learning Personality Assessment* (pp. 191-214). Mahwah, NJ: Lawrence Erlbaum Associates.
- Moore, G. E., & Mears, D. P. (2003). *Voices from the field: Practitioners identify key issues in corrections-based drug treatment*. Washington, DC: Urban Institute, Justice Policy Center.
- Mueser, K. T., Bennett, M., & Kushner, M. G. (1995). Epidemiology of substance use disorders among persons with chronic mental illness. In A. F. Lehman & L. B. Dixon (Eds.), *Double jeopardy: Chronic mental illness and substance use disorders* (pp. 9-25). Chur, Switzerland: Harwood Academic Publishers.
- Mueser, K. T., Noordsy, D. L., Drake, R. E., & Fox, L. (2003). *Integrated treatment for dual disorders: A guide to effective practice*. New York, NY: Guilford Press.
- Myerholz, L. E., & Rosenberg, H. (1997). Screening DUI offenders for alcohol problems: Psychometric assessment of the Substance Abuse Subtle Screening Inventory. *Psychology of Addictive Behaviors, 11*, 155-165.
- Myerholtz, L. E., & Rosenberg, H. (1998). Screening college students for alcohol problems: Psychometric assessment of the SASSI-2. *Journal of Studies on Alcohol, 59*, 439-446.
- Najavits, L. M., Weiss, R. D., Reif, S., Gastfriend, D. R., Siqueland, L., Barber, J. P., et al. (1998). The Addiction Severity Index as a screen for trauma and posttraumatic stress disorder. *Journal of Studies on Alcohol, 59*, 56-62.
- National Alliance on Mental Illness, Ohio. (2005). *The mentally ill and the criminal justice system: A review of programs*. Columbus, OH: Author.
- National Association of State Mental Health Program Directors and National Association of State Alcohol and Drug Abuse Directors. (1999). *National dialogue on co-occurring mental health and substance abuse disorders*. Washington, DC: National Association of State Alcohol and Drug Abuse Directors.
- National GAINS Center for People with Co-Occurring Disorders in the Justice System. (2004). *The prevalence of co-occurring mental illness and substance use disorders in jails*. Fact Sheet Series. Delmar, NY: Author.
- National Health Committee. (1999). *Guidelines for recognizing, assessing and treating alcohol and cannabis abuse in primary care*. Wellington, Australia: Author. Available at http://www.nzgg.org.nz/guidelines/0040/full_guideline.pdf.
- National Institute of Justice. (2003). *2000 arrestee drug abuse monitoring: Annual report* (Publication No. NCJ 193013). Washington, DC: Author.
- National Institute of Mental Health (2008). *Suicide in the U.S: Statistics and prevention*. Available at <http://www.nimh.nih.gov/health/publications/suicide-in-the-us-statistics-and-prevention.shtml>
- National Institute on Drug Abuse. (2006). *Principles of drug abuse treatment for criminal justice populations: A research-based guide* (Publication No. NIH 06-5316). Rockville, MD: Author.
- Negrete, J. C., Collins, J., Turner, N. E., & Skinner, W. (2004). The center for addiction and mental health concurrent disorders screener. *Canadian Journal of Psychiatry, 49*(12), 843-850.

- Nochajski, T. H., & Stasiewicz, P. R. (2005). Assessing stages of change in DUI offenders: A comparison of two measures. *Journal of Addictions Nursing, 6*(1), 57-67.
- O'Connell, H., Chin, A., Hamilton, F., Cunningham, C., Walsh, J.B., Coakley, D., et al. (2004). A systematic review of the utility of self-report alcohol screening instruments in the elderly. *International Journal of Geriatric Psychiatry, 19*, 1074-1086.
- O'Hare, T. Sherrer, M. V., LaButti, A., & Emrick, K. (2004). Validating the Alcohol Use Disorders Identification Test with persons who have serious mental illness. *Research on Social Work Practice, 14*, 36-42.
- O'Keefe, M. L., Klebe, K. J., & Timken, D. S. (1999). *Reliability and validity of the Simple Screening Instrument for offenders*. Boston, MA: Poster session presented at the annual meeting of the American Psychological Association.
- Osher, F. C., & Kofoed, L. L. (1989). Treatment of patients with psychiatric and psychoactive substance abuse disorders. *Hospital and Community Psychiatry, 40*, 1025-1030.
- Osher, F., Steadman, H. J., & Barr, H. (2002). *A best practice approach to community re-entry from jails for inmates with co-occurring disorders: The APIC model*. Delmar, NY: The National GAINS Center.
- Osher, F., Steadman, H. J., & Barr, H. (2003). A best practice approach to community reentry from jails for inmates with co-occurring disorders: The APIC Model. *Crime and Delinquency, 49*(1), 79-96.
- Osman, A., Gifford, J., Jones, T., Lickiss, L., Osman, J. R., & Wenzel, R. (1993). Psychometric evaluation of the Reasons for Living Inventory. *Psychological Assessment, 5*(2), 154-158.
- Osman, A., Jones, T., & Osman, J. R. (1991). The Reasons for Living Inventory: Psychometric properties. *Psychological Reports, 69*, 271-278.
- Pantalon, M. V., & Swanson, A. J. (2003). Readiness to change and treatment adherence among psychiatric and dually-diagnosed inpatients. *Psychology of Addictive Behaviors, 17*, 91-97.
- Pedersen, E. R., & LaBrie, J. W. (2006). A within-subjects validation of a group-administered timeline followback for alcohol use. *Journal of Studies on Alcohol, 67*, 332-335.
- Penley, J. A., Wiebe, J. S., & Nwosu, A. (2003). Psychometric properties of the Spanish Beck Depression Inventory-II in a medical sample. *Psychological Assessment, 15*(4), 569-577.
- Peters, R. H. (1992). Referral and screening for substance abuse treatment in jails. *The Journal of Mental Health Administration, 19*(1), 53-75.
- Peters, R. H., & Greenbaum, P. E. (1996). *Texas Department of Criminal Justice/Center for Substance Abuse Treatment prison substance abuse screening project*. Millford, MA: Civigenics, Inc.
- Peters, R. H., & Hills, H. A. (1997). *Intervention strategies for offenders with co-occurring disorders: What works?* Delmar, NY: The National GAINS Center.
- Peters, R. H., & Osher, F. C. (2003). *Co-occurring disorders and specialty courts*. Delmar, N.Y: The National GAINS Center.
- Peters, R. H., Greenbaum, P. E., Edens, J. F., Carter, C. R., & Ortiz, M. M. (1998). Prevalence of DSM-IV substance abuse and dependence disorders among prison inmates. *American Journal of Drug and Alcohol Abuse, 24*(4), 573-587.
- Peters, R. H., Greenbaum, P. E., Steinberg, M. L., Carter, C. R., Ortiz, M. M., Fry, B. C., et al. (2000). Effectiveness of screening instruments in detecting substance use disorders among prisoners. *Journal of Substance Abuse Treatment, 18*, 349-358.

- Peters, R. H., LeVasseur, M. E., & Chandler, R. K. (2004). Correctional treatment for co-occurring disorders: Results of a national survey. *Behavioral Sciences and the Law*, 22(4), 563-584.
- Peters, R. H., Sherman, P. B., & Osher, F. C. (in press). Treatment in jails and prison. In K.T. Mueser, & D.V. Jeste (Eds.), *Clinical Handbook of Schizophrenia*. New York, NY: Guilford Press.
- Peveler, R. C., & Fairburn, C. G. (1990). Measurement of neurotic symptoms by self-report questionnaire: Validity of the SCL90R. *Psychological Medicine*, 20, 873-879.
- Pragst, F., & Balikova, M.A. (in press). State of the art in hair analysis for detection of drug and alcohol abuse. *Clinica Chimica Acta*.
- Prochaska, J. O., & DiClemente, C. C. (1992). The transtheoretical approach. In J. C. Norcross & M. R. Goldfried (Eds.), *Handbook of psychotherapy integration*. New York, NY: Basic Books.
- RachBeisel, J., Scott, J., & Dixon, L. (1999). Co-occurring severe mental illness and substance use disorders: A review of recent research. *Psychiatric Services*, 50, 1427-1434.
- Reinert, D. F., & Allen, J. P. (2002). The Alcohol Use Disorders Identification Test (AUDIT): A review of recent research. *Alcoholism: Clinical and Experimental Research*, 26, 272-279.
- Retzlaff, P., Stoner, J., & Kleinsasser, D. (2002). The use of the MCMI-III in the screening and triage of offenders. *International Journal of Offender Therapy and Comparative Criminology*, 46(3), 319-332.
- Rhodes, W., Hyatt, R., & Scheiman, P. (1996). *Predicting pretrial misconduct with drug tests of arrestees: Evidence from six sites*. Research In Brief. Washington, DC: U.S. Department of Justice, National Institute of Justice.
- Richards, H. J., & Pai, S. M. (2003). Deception in prison assessment of substance abuse. *Journal of Substance Abuse Treatment*, 24(2), 121-128.
- Richter, P., Werner J., Heerlein, A., Kraus, A., & Sauer, H. (1998). On the validity of the Beck Depression Inventory: A review. *Psychopathology*, 31(3), 160-168.
- Rikoon, S. A., Cacciola, J. S., Carise, D., Alterman, A. I., & McLellan, T. (2006). Predicting DSM-IV dependence diagnoses from Addiction Severity Index composite scores. *Journal of Substance Abuse Treatment*, 31, 17-24.
- Robins, L. N., & Regier, D. A. (Eds.). (1991). *Psychiatric disorders in America: The epidemiologic catchment area study*. New York, NY: The Free Press.
- Robins, L. N., Helzer, J. E., Croughan, J., & Ratcliff, K. S. (1981). National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. *Archives of General Psychiatry*, 38, 381-389.
- Robinson, J. J., & Jones, J. W. (2000). *Drug testing in a drug court environment: Common issues to address* (Publication No. NCJ 181103). Washington, DC: U.S. Department of Justice.
- Rogers, R., Cashel, M. L., Johansen, J., Sewell, K. W., & Gonzalez, C. (1997). Evaluation of adolescent offenders with substance abuse: Validation of the SASSI with conduct-disordered youth. *Criminal Justice and Behavior*, 24, 114-128.
- Rogers, R., Jackson, R. L., & Salekin, K. L. (2003). Assessing axis I symptomatology on the SADS-C in two correctional samples: The validation of subscales and a screen for malingered presentations. *Journal of Personality Assessment*, 81, 281-290.
- Rogers, R., Sewell, K. W., & Ustad, K. (1995). The Referral Decision Scale with mentally disordered inmates: A preliminary study of convergent and discriminant validity. *Law and Human Behavior*, 19, 481-492.

- Rollnick, H., Heather, N., Gold, R., & Hall, W. (1992). Development of a short 'readiness to change' questionnaire for use in brief, opportunistic interventions among excessive drinkers. *British Journal of Addiction, 87*, 743-754.
- Rosen, C., Dreschler, K., Moos, R., Finney, J., Murphy, R., & Gusman, F. (2000). Six and ten item indices of psychological distress based on the Symptom Checklist-90. *Assessment, 7*, 103-111.
- Rosenberg, S. D., Drake, R. E., Wolford, G. L., Mueser, K. T., Oxman, T. E., Vidaver, R. M., et al. (1998). Dartmouth Assessment of Lifestyle Instrument (DALI): A substance use disorder screen for people with severe mental illness. *American Journal of Psychiatry, 155*(2), 232-238.
- Ross, H. E., Gavin, D. R., & Skinner, H. A. (1990). Diagnostic validity of the MAST and the Alcohol Dependence Scale in the assessment of DSM-III alcohol disorders. *Journal of Studies on Alcohol, 51*(6), 506-513.
- Ross, H. E., Swinson, R., Doumani, S., & Larkin, E. J. (1995). Diagnosing comorbidity in substance abusers: A comparison of the test-retest reliability of two interviews. *American Journal of Drug and Alcohol Abuse, 21*(2), 167-185.
- Rounsaville, B. J., Weissman, M. M., Rosenberger, P. H., Wilber, C. H., & Kleber, H. D. (1979). Detecting depressive disorders in drug abusers: A comparison of screening instruments. *Journal of Affective Disorders, 1*, 255-267.
- Sacks, J. A. (2004). Women with co-occurring substance use and mental disorders (COD) in the criminal justice system: A research review. *Behavior Sciences and the Law, 22*(4), 449-466.
- Sacks, S., Melnick, G., Coen, C., Banks, S., Friedmann, P. D., Grella, C., et al. (in press). CJDATS Co-Occurring Disorders Screening Instrument (CODSI) for Mental Disorders (MD): A validation study. *Criminal Justice and Behavior*.
- Sacks, S., Sacks, J., McKendrick, K., Banks, S., & Stommel, J. (2004). Modified therapeutic community for MICA offenders. Crime outcomes. *Behavioral Sciences & the Law, 22*(4), 477-501.
- Samet, S., Nunes, E. V., & Hasin, D. (2004). Diagnosing comorbidity: Concepts, criteria, and methods. *Acta Neuropsychiatrica, 16*, 9-18.
- Searles, J. S., Alterman, A. I., & Purtill, J. J. (1990). The detection of alcoholism in hospitalized schizophrenics: A comparison of the MAST and the MAC. *Alcoholism: Clinical and Experimental Research, 14*(4), 557-560.
- Selzer, M. L., Vinokur, A., & VanRooijen, L. (1975). A self-administered short version of the Michigan Alcoholism Screening Test (SMAST). *Journal of Studies on Alcohol, 36*, 117-126.
- Share, D., McGrady, B., & Epstein, E. (2004). Stage of change and decisional balance for women seeking alcohol treatment. *Addictive Behaviors, 29*, 525-535.
- Shear, M. K., Greeno, C., Kang, J., Ludwig, D., Frank, E., Swartz, H. A., et al. (2000). Diagnosis of nonpsychotic patients in community clinics. *American Journal of Psychiatry, 157*, 581-587.
- Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., et al. (1998). The MINI-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry, 20*, 22-33.
- Shields, A. L., & Caruso, J. C. (2003). Reliability generalization of the Alcohol Use Disorders Identification Test. *Educational and Psychological Measurement, 63*, 404-413.
- Shields, A. L., & Caruso, J. C. (2004). A reliability induction and reliability generalization study of the CAGE questionnaire. *Educational and Psychological Measurement, 64*, 254-270.

- Shields, A. L., & Hufford, M. R. (2005). Assessing motivation to change among problem drinkers with and without co-occurring major depression. *Journal of Psychoactive Drugs*, *37*(4), 401-408.
- Simpson, D. D., & Knight, K. (1998). *TCU data collection forms for correctional residential treatment*. Fort Worth, TX: Texas Christian University, Institute of Behavioral Research.
- Skinner, H. A. (1982). The Drug Abuse Screening Test. *Addictive Behaviors*, *7*, 363-371.
- Skinner, H. A., & Horn, J. L. (1984). *Alcohol Dependence Scale (ADS)*. Toronto, Canada: The Centre for Addiction and Mental Health.
- Sobell L. C., Agrawal, S., Sobell, M. B., Leo, G. I., Young, L. J., Cunningham, J. A., et al. (2003). Comparison of a quick drinking screen with the Timeline Followback for individuals with alcohol problems. *Journal of Studies on Alcohol*, *64*, 858-861.
- Society of Hair Testing. (2004). Recommendations for hair testing in forensic cases. *Forensic Science International*, *145*(2-3) 83-84.
- Steadman, H. J., Scott, J. E., Osher, E., Agnese, T. K., & Robbins, P. C. (2005). Validation of the Brief Jail Mental Health Screen. *Psychiatric Services*, *56*(7), 816-822.
- Steed, L. (2001). Further validity and reliability evidence for Beck Hopelessness Scale scores in a nonclinical sample. *Educational and Psychological Measurement*, *61*, 303-316.
- Steer, R. A., Beck, A. T., & Garrison, B. (1986). Applications of the Beck Depression Inventory. In N. Sartorius & T. A. Ban (Eds.), *Assessment of depression* (pp. 121-142). New York, NY: Springer-Verlag.
- Steer, R. A., Brown, K. G., Beck, A. T., & Sanderson, W. C. (2001). Mean Beck Depression Inventory II scores by severity of major depressive episode. *Psychological Reports*, *88*, 1075-1076.
- Stein, L. A. R., Lebeau-Craven, R., Martin, R., Colby, S. M., Barnett, N. P., Golembeske, C., et al. (2005). Use of the Adolescent SASSI in a juvenile setting. *Assessment*, *12*, 384-394.
- Stone, A., Greenstein, R., Gamble, G., & McClellan, A. T. (1993). Cocaine use in chronic schizophrenic outpatients receiving depot neuroleptic medications. *Hospital and Community Psychiatry*, *44*, 176-177.
- Sundberg, N. D. (1987). Review of the Beck Depression Inventory (revised edition). In J. J. Kramer & J. C. Conoley (Eds.), *Mental measurements yearbook, 11th edition* (pp. 79-81). Lincoln, NE: University of Nebraska Press.
- Svanum, S., & McGrew, J. (1995). Prospective screening of substance dependence: The advantages of directness. *Addictive Behaviors*, *20*, 205-213.
- Swartz, J. A. (1998). Adapting and using the Substance Abuse Subtle Screening Inventory-2 with criminal justice offenders. *Criminal Justice and Behavior*, *25*, 344-365.
- Swartz, J. A., & Lurigio, A. J. (2005). Detecting Serious Mental Illness Among Substance Abusers: Use of the K6 Screening Scale. *Journal of Evidence-Based Social Work*, *2*(1-2), 113-135.
- Sweet, R. I., & Saules, K. K. (2003). Validity of the Substance Abuse Subtle Screening Inventory-Adolescent version (SASSI-A). *Journal of Substance Abuse Treatment*, *24*, 331-340.
- Teague, G. B., Schwab, B., & Drake, R. E. (1990). *Evaluating services for young adults with severe mental illness and substance use disorders*. Arlington, VA: National Association of State Mental Health Program Directors.
- Teitelbaum, L. M., & Carey, K. B. (2000). Temporal stability of alcohol screening measures in a psychiatric setting. *Psychology of Addictive Behaviors*, *14*, 401-404.

- Teitelbaum L. M., & Mullen, B. (2000). The validity of the MAST in psychiatric settings: A meta-analytic integration. *Journal of Studies on Alcohol*, *61*, 254-261.
- Teplin, L. A. (1983). The criminalization of the mentally ill: Speculation in search of data. *Psychological Bulletin*, *94*(1), 54-67.
- Teplin, L. A. (1990). Detecting disorder: The treatment of mental illness among jail detainees. *Journal of Consulting and Clinical Psychology*, *58*, 233-236.
- Teplin, L. A. (1994). Psychiatric and substance abuse disorders among male urban detainees. *American Journal of Public Health*, *84*(2), 290-293.
- Teplin, L. A., Abram, K. M., & McClelland, G. M. (1996). Prevalence of psychiatric disorders among incarcerated women: Pretrial jail detainees. *Archives of General Psychiatry*, *53*(6), 505-512.
- Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry*, *59*(12), 1133-1143.
- Thurber, S., Snow, M., Lewis, D., & Hodgson, J. M. (2001). Item characteristics of the Michigan Alcoholism Screening Test. *Journal of Clinical Psychology*, *57*, 139-144.
- Timrots, A. (1992). *Fact sheet: Drug testing in the criminal justice system*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance.
- Toland, A. M., & Moss, H. B. (1989). Identification of the alcoholic schizophrenic: Use of clinical laboratory tests and the MAST. *Journal of Studies on Alcohol*, *50*(1), 49-53.
- Tonigan, J. S., Miller, W. R., & Brown, J. M. (1997). The reliability of Form 90: An instrument for assessing alcohol treatment outcome. *Journal of Studies on Alcohol*, *58*, 358-364.
- Torrens, M., Serrano, D., Astals, M., Pérez-Domínguez, G., & Martín-Santos R. (2004). Diagnosing psychiatric comorbidity in substance abusers: Validity of the Spanish versions of Psychiatric Research Interview for Substance and Mental Disorders (PRISM-IV) and the Structured Clinical Interview for DSM-IV (SCID-IV). *American Journal of Psychiatry*, *161*, 1231-1237.
- Travis, J., Solomon, A. L., & Waul, M. (2001). *From prison to home: The dimensions and consequences of prisoner reentry*. Washington, DC: The Urban Institute, Justice Policy Center.
- Turner, C. F., Villarroel, M. A., Rogers, S. M., Eggleston, E., Ganapathi, L., Roman, A. M., et al. (2005). Reducing bias in telephone survey estimates of the prevalence of drug use: A randomized trial of telephone audio-CASI. *Addiction*, *100*, 1432-1444.
- U.S. Department of Health & Human Services (2003) *Healthy people 2010: Progress review—mental health and mental disorders*. Available at <http://www.healthypeople.gov/Data/2010prog/focus18/default.htm>
- Üstün B., Compton, W., Mager, D., Babor, T., Baiyewu, O., Chatteriji, S., et al. (1997). WHO study on the reliability and validity of the alcohol and drug use disorder instruments: Overview of methods and results. *Drug and Alcohol Dependence*, *47*, 161-169.
- Vandeveld, S., Broekaert, E., Schuyten, G., & Van Hove, G. (2005). Intellectual abilities and motivation toward substance abuse treatment in drug-involved offenders: A pilot study in the Belgium criminal justice system. *International Journal of Offender Therapy and Comparative Criminology*, *49*(3), 277-297.
- Verstraete, A. (2004). Detection times of drugs of abuse in blood, urine and oral fluid. *Therapeutic Drug Monitoring*, *26*, 200-205.
- Veysey, B. M., Steadman, H. J., Morrissey, J. P., & Johnsen, M. (1997). In search of the missing linkages: Continuity of care in U.S. jails. *Behavioral Sciences and the Law*, *15*, 383-397.

- Visher, C. A. (1992). Pretrial drug testing: Panacea or Pandora's Box. *Annals of the American Academy of Political and Social Science*, 521, 112-131.
- Volk, R. J., Steinbauer, J. R., Cantor, S. B., & Holzer, C. E. (1997). The Alcohol Use Disorders Identification Test (AUDIT) as a screen for at-risk drinking in primary care patients of different racial/ethnic backgrounds. *Addiction*, 92, 197-206.
- Weathers, F. W., Keane, T. M., & Davidson, J. R. T. (2001). Clinician-administered PTSD scale: A review of the first ten years of research. *Depression and Anxiety*, 13(3), 132-156.
- Weed, N. C., Butcher, J. N., McKenna, T., & Ben-Porath, Y. S. (1992). Measures for assessing alcohol and drug abuse with the MMPI-2: The APS and AAS. *Journal of Personality Assessment*, 58(2) 389-404.
- Weisman, R. L., Lamberti, J. S., & Price, N. (2004). Integrating criminal justice, community healthcare, and support services for adults with severe mental disorders. *Psychiatric Quarterly*, 75(1), 71-85.
- Weiss, D. S., & Marmar, C. R. (1996). The Impact of Event Scale - Revised. In J. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York, NY: Guilford.
- Weiss, R. D., & Mirin, S. M. (1989). The dual diagnosis alcoholic: Evaluation and treatment. *Psychiatric Annals*, 19(5), 261-265.
- Westerberg V. S., Tonigan J. S., & Miller, W. R. (1998). Reliability of Form 90D: An instrument for quantifying drug use. *Substance Abuse*, 19, 179-189.
- Wiebe, J. S., & Penly, J. A. (2005). A Psychometric comparison of the Beck Depression Inventory II in English and Spanish. *Psychological Assessment*, 17, 481-485.
- Willenbring, M. L. (1986). Measurement of depression in alcoholics. *Journal of Studies on Alcohol*, 47(5), 367-372.
- Wolff, K., Farrell, M., Marsden, J., Monteiro, M. G., Ali, R., Welch, S., et al. (1999). A review of biological indicators of illicit drug use: Practical considerations and clinical usefulness. *Addiction*, 94, 1279-1298.
- Yacoubian, G. S., VanderWall, K. L., Johnson, R. J., Urbach, B. J., & Peters, R. J. (2003). Comparing the validity of self-reported recent drug use between adult and juvenile arrestees. *Journal of Psychoactive Drugs*, 35(2), 279-248.
- Young, D. (2002). Impacts of perceived legal pressure on retention in drug treatment. *Criminal Justice and Behavior*, 29(1), 27-55.
- Zabora, J., Brintzenhofeszoc K., Jacobsen, P., Curbow, B., Piantadosi, S., Hooker, C., et al. (2001). A new psychological screening instrument for use with cancer patients. *Psychosomatics*, 42(3), 241-246.
- Zack, M., Toneatto, T., & Streiner, D. (1998). The SCL-90 factor structure in comorbid substance abusers. *Journal of Substance Abuse*, 10, 85-101.
- Zanis, D. A., McLellan, A. T., & Corse, S. (1997). Is the Addiction Severity Index a reliable and valid assessment instrument among clients with severe and persistent mental illness and substance abuse disorders? *Community Mental Health Journal*, 33(3), 213-227.
- Ziedones, D. M., & Fisher, W. (1994). Assessment and treatment of comorbid substance abuse in individuals with schizophrenia. *Psychiatric Annals*, 24(9), 477-483.
- Zimmerman, M., & Mattia, J. I. (2001). A self-report scale to help make psychiatric diagnoses: The Psychiatric Diagnostic Screening Questionnaire. *Archives of General Psychiatry*, 58, 787-794.

- Zimmerman, M., & Sheeran, T. (2003). Screening for principal versus comorbid conditions in psychiatric outpatients with the Psychiatric Diagnostic Screening Questionnaire. *Psychological Assessment, 15*(1), 110-114.
- Zimmerman, M., Sheeran, T., Chelminski, I., & Young, D. (2004). Screening for psychiatric disorders in outpatients with DSM-IV substance use disorders. *Journal of Substance Abuse Treatment, 26*, 181-188.
- Zung, B. J. (1984). Correlates of the Michigan Alcoholism Screening Test (MAST) among DWI offenders. *Journal of Clinical Psychology, 40*, 607-612.