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Screening for serious mental illness among offenders

By James Swartz, Ph.D., University of Illinois at Chicago

Numerous epidemiological studies have documented that offenders at all levels of the criminal justice system have high rates of serious psychiatric disorders. More individuals with serious mental illness receive treatment in prisons and jails than in psychiatric hospitals. Though estimates vary depending on the definition used, the rate of psychiatric disorders among criminal justice populations appears to be between 15 and 20 percent.[1] As many as one-fifth of individuals under the supervision of the criminal justice system have a chronic, debilitating psychiatric disorder such as schizophrenia, bipolar disorder, and major depression. Other common and potentially severe disorders include post-traumatic stress disorder and borderline personality disorder.

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Collectively, such disorders are referred to as serious mental illness and are of particular concern to clinicians because of their chronic nature and their potential to interfere with an affected person's ability to function in society. Issues thought to contribute to what has been called the "criminalization of the mentally ill" include: the closing of psychiatric hospitals and the lack of available psychiatric treatment resources in the community; high rates of homelessness among those with serious mental illness; a tendency of some individuals with serious mental illness toward violence, and the high rates of co-occurring alcohol and drug use among those with serious mental illness.[2]

Without treatment, offenders with serious mental illness often have trouble obeying the rules of prisons and jails. Furthermore, inmates and detainees with mental illnesses are at increased risk for suicide, disciplinary infractions, and victimization.[3] Many are physically and sexually abused while incarcerated. In addition, mentally ill persons on community supervi-

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Table 1
K6 Scale core items

The following questions ask about how you have been feeling during the past 30 days. For each question, please circle the number that best describes how often you had this feeling.					
Q1. During the past 30 days, about how often did you feel…	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. …nervous?	0	1	2	3	4
b. …hopeless?	0	1	2	3	4
c. …restless or fidgety?	0	1	2	3	4
d. …so depressed that nothing could cheer you up?	0	1	2	3	4
e. …that everything was an effort?	0	1	2	3	4
f. …worthless?	0	1	2	3	4

sion can have problems adjusting to their sentences. For example, mentally ill probationers might have trouble complying with probation orders to find employment or report to officers and are at increased risk for a technical violation or for re-arrest on a new offense.

The need for a validated screening tool

Despite the clear indications (and legal requirements) for providing treatment services to help offenders with serious mental illness, many criminal justice organizations have failed to do so. A recent report by Human Rights Watch provides detailed accounts of prison inmates with serious mental illness who are undiagnosed and describes numerous, systemic instances of their mistreatment by other inmates as well as by correctional staff.

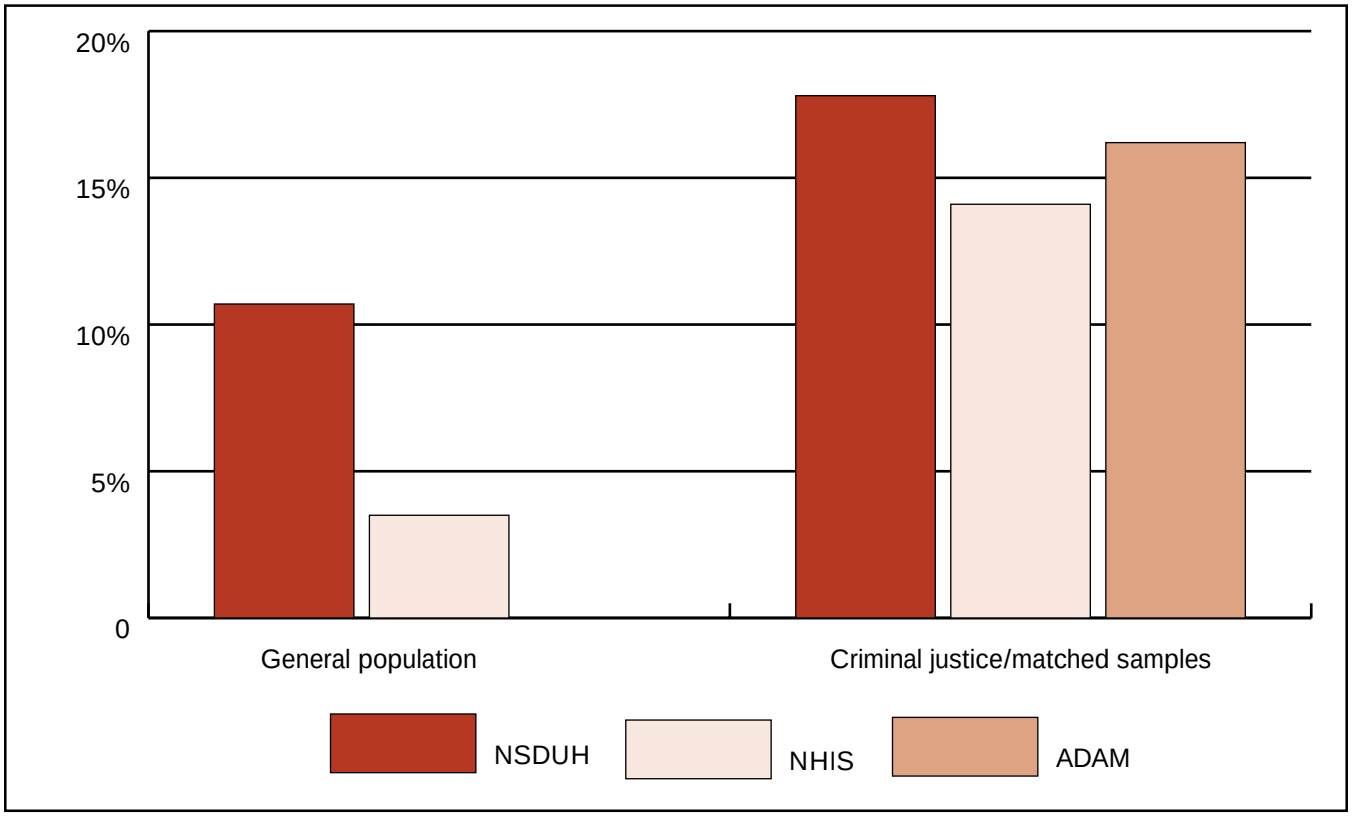
While multiple factors likely underlie the failure to provide adequate treatment, an important contributing factor lies with problems in the screening processes; the symptoms of serious mental illness are not recognized as stemming from a psychiatric condition. In many criminal justice settings, screening is not standardized, with wide variations in how screenings are conducted and, consequently, variations in the validity of the screening results. Reasons for the lack of standardization are not completely clear, but, historically, available standardized screening tools for psychiatric disorders have been lengthy and complicated and often require administration by trained clinicians.

The K6 Screening Scale

The K6 scale, a recently developed and validated screening tool, could potentially fill this void. The K6 was developed by Ronald Kessler, a professor of health care policy at Harvard University. Beginning with a pool of more than 500 questions derived from existing psychological instruments, Kessler and his colleagues distilled a subset of six questions that identified, with maximum sensitivity, individuals meeting the following two criteria: a past-year diagnosis of any major psychiatric disorder and a Global Assessment of Functioning score below 60.[4] Further calibration of the K6 helped develop cut-scores identifying individuals above the 90th percentile in symptom severity – consistent with estimates that six to 10 percent of the general population are in need of psychiatric treatment services at any one time.

The six core items that comprise the K6 are shown in Table 1. In addition to the items shown, the full K6 includes a few optional questions to determine the degree of an individual's functional impairment, as well as whether the psychiatric symptoms can be attributed to a medical or physical problem.

Figure 1
K6-derived rates of serious mental illness by study sample and criminal justice status



Note. Data obtained from the 2002 National Survey on Drug Use and Health (NSDUH), the 2001 National Health Interview Survey (NHIS), and Arrestee Drug Abuse Monitoring (ADAM) data collected in Chicago in 2003. The NSDUH general population sample was comprised of all adult participants who did not report an arrest in the past year (N = 34,271) while the NHIS general population sample was comprised of all adult participants (N = 33,326). The NSDUH criminal justice sample was comprised of all participants reporting a past-year arrest (N = 1, 684) while the NHIS "'criminal justice" sample (N = 277) was comprised solely of male respondents demographically matched to the ADAM sample (N = 263), which was also comprised solely of adult male arrestees.

Participants respond to the K6 items by indicating the extent to which they experienced each of six symptoms in the past month. Item ratings are based on five-point scales from 0 ("none of the time") to 4 ("all of the time") that, when summed, yield a total score that ranges from 0 to 24. Individuals with scores of 13 and above on the K6 are in the upper 10 percent of the general population in terms of symptoms of serious psychological distress that are strongly associated with having an serious mental illness. These thresholds were selected based on the aforementioned estimate that the actual need for psychiatric treatment in the general population is between 6 and 10 percent. The K6 has subsequently performed accurately and as well as much longer diagnostic instruments in large general population samples.

Preliminary studies with offender populations

A number of studies were conducted to specifically explore use of the K6 scale with criminal justice populations, particularly for those with co-occurring drug and psychiatric disorders. These studies have included analysis of data obtained from arrestees as part of the 2002 National Survey on Drug Use and Health (NSDUH) and the 2001 National Health Interview Survey (NHIS). The K6 also was administered to 263 Chicago adult male arrestees participating in the Arrestee Drug Abuse Monitoring study in January 2003.

In the three samples, the recommended cut-score of 13 and above was used on the K6 to assess participants as having a serious mental illness. Substance use, abuse, and dependence were assessed for the NSDUH and ADAM samples using diagnostic data collected through a series of questions asked as part of each

study's questionnaire. Using these three samples, the researchers attempted to determine the prevalence of serious mental illness among arrestees with and without a co-occurring substance use disorder. With the ADAM sample, researchers also wanted to determine the feasibility and ease of use for the K6 with a population where literacy rates might be expected to be relatively low or where some respondents were not fluent in English.

Prevalence of serious mental illness

Figure 1 shows the K6 scale results for the three study samples. For reference purposes, the results for the non-arrestee NSDUH and NHIS participants were included. A striking finding was the consistency of the prevalence of serious mental illness across criminal justice samples. For all three samples, the rates of serious mental illness according to the K6 were in the expected range of 15 to 20 percent.

Prevalence of co-occurring substance use disorders

As in many other studies, elevated rates of past-year substance-abuse/dependence were seen among those with a serious mental illness compared with those who did not have an serious mental illness. For example, using the 2002 NSDUH sample, 25 percent of those with a serious mental illness reported a past-year dependence on marijuana compared with 16 percent of those without an serious mental illness. Similarly, 8 percent of those with a serious mental illness were dependent on heroin or other opiates in the past year compared with 4 percent of those without a serious mental illness.

Conclusions

These preliminary findings support the use of the K6/K10 scales with criminal justice populations. The K6 was easy to administer and score and few comprehensibility problems existed among the sample of ADAM arrestees tested. The average administration time for the K6 was less than 3 minutes, and only 2 of more than 260 participants could not complete the form on their own because of language problems. Because of its brevity and ease of use, K6 can easily be incorporated into the current screening practices of many criminal justice institutions including high-volume jail and prison classification centers.

Those who screen positive on the K6 will have reported recent symptoms of severe psychological distress consistent with serious mental illness and are in the highest 10 percent of the general population in terms of symptom severity and functional impairment. At a minimum, these individuals require a full assessment by a trained clinician to determine the exact nature of their psychiatric disorder and their level of treatment need, which is likely to be intensive. They are likely to be at high risk for suicide and also likely to have a co-occurring substance use disorder. Based on the preliminary findings, it is expected that in criminal justice contexts 15 to 20 percent of those screened will be positive for a serious mental illness. If the scale is used to screen for serious mental illness among populations with known substance use disorders, the prevalence of serious mental illness may be higher than 20 percent. However, the established cut-point on the K6 can be adjusted in either direction to fit resource availability and multiple cut-points have been recommended.

Notes

[1] Human Rights Watch [HRW] (2003). *Ill equipped: U.S. prisons and offenders with mental illnesses*. Retrieved October 22, 2003 from http://www.hrw.org/reports/2003/usa1003/index.htm.

[2] Lamb, H.R., Weinberger, L.E., & Gross, B.H. (2004). Mentally ill in the criminal justice system: Some perspectives. *Psychiatric Quarterly*, 75(2), 107-126.

[3] Human Rights Watch [HRW] (2003). *Ill equipped: U.S. prisons and offenders with mental illnesses*. Retrieved October 22, 2003 from http://www.hrw.org/reports/2003/usa1003/index.htm.

[4] The Global Assessment of Functioning score (GAF) is a measure defined in the American Psychiatric Association's Diagnostic and Statistical Manual, the main reference for diagnosing psychiatric disorders in this country. The GAF is a scale that ranges from 0 to 100 with lower scores indicating more severe psychiatric symptoms and greater impairment in functioning. A person with a score of 60, for example, would be having difficulty getting along with friends, family, and co-workers and might describe fighting at work and having few friends. They might also describe having moderate psychiatric problems such as occasional panic attacks. A score of 50 would indicate the person describes having no close friends and reports having ideas about committing suicide.