Original Article

Journal of Addictions Nursing • Volume 31 • Number 1, 9–16 • Copyright © 2020 International Nurses Society on Addictions

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Assessing an Epidemic

Utility of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition Level 2 Substance Use Screener in Adult Psychiatric Inpatients

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Abstract

Background: Inpatient psychiatric hospitals provide an important point of care for assessing and stabilizing substance use and for facilitating linkage to appropriate treatment. Toxicology screening provides a key measure of substance use yet may miss many cases of substance use because of variable windows of detection and the limited scope of substances assessed. This study assesses the utility of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*) Level 2 Substance Use screener as a supplemental tool for identifying substance use by self-report within an inpatient psychiatric hospital setting.

Methods: From a larger sample of 97 adult psychiatric inpatients, 60 who underwent drug toxicology testing and completed the *DSM-5* screener were assessed. We examined the sensitivity and specificity of the self-report screener in comparison with drug toxicology test results collected by chart review.

Results: Sensitivity of the *DSM-5* screener varied across substances assessed: The self-report measure identified 100% of individuals who tested positive for opioid use, 83% who tested positive for cannabis use, 50% who tested positive for cocaine use, and 37% who tested positive for benzodiazepine use. The self-report measure also identified 27 instances among 60 participants in which substance use identified by self-report was not detected by toxicology testing.

Conclusion: The brief and easily administered *DSM-5* Level 2 Substance Use screener shows promise for improving identification of substance use in an inpatient psychiatric hospital setting. This measure may also provide psychiatric inpatient nursing staff with a means of working collaboratively with patients to assess substance use and coordinate appropriate treatment plans.

Keywords: detoxification, drug use, *DSM-5* Level 2 Substance Use, psychiatric hospital, psychiatric inpatient, substance use

Illicit drug use poses high and rising costs to the United States. In 2017, 72,000 Americans died by drug overdose, marking an all-time high and a more than threefold increase in deaths over the last 15 years (Centers for Disease Control and Prevention, 2018). This epidemic is accompanied by a massive economic burden, with an estimated $193 billion lost annually because of costs associated with crime, lost work productivity, and health care spending (National Drug Intelligence Center, 2011). Climbing rates of illicit drug use have increasingly strained health care resources—although an estimated 22.7 million Americans required substance abuse treatment in 2013, only 2.5 million, or 9%, received specialty substance use disorder (SUD) care (Center for Behavioral Health Statistics and Quality, 2016; Juraschek, Zhang, Ranganathan, & Lin, 2012; Mark et al., 2016). The accumulation of these trends has placed a heavy and growing burden on addiction nurses, who provide many of the essential services necessary in acute SUD care (Delaney, 2016). To maximize resources for these health care providers, improvements in the efficiency and effectiveness of SUD care are needed.

Inpatient psychiatric units provide a critical opportunity for providers to assess and stabilize problematic substance use within a controlled environment. This context serves as a primary point of care for many individuals undergoing drug detoxification. Moreover, illicit drug use is highly prevalent among people receiving treatment for other mental health conditions. Approximately half of individuals who experience mental illness also receive an SUD diagnosis in their lifetime, and mental health treatment outcomes are worse when substance use problems remain unaddressed (Drake, Mueser,

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This study did not receive external funding. Matthew C. Sullivan is supported by a training grant from the National Institute of Mental Health (T32-MH074387). Dean G. Cruess has received research grants from the National Institute of Mental Health. All other authors declare that they have no conflicts of interest.

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DOI: 10.1097/JAN.0000000000000318

Clark, & Wallach, 1996; Ross & Peselow, 2012). Thus, nurses' ability to identify illicit drug use within this setting is critical for providing effective treatment and for making referrals to appropriate residential or outpatient care. Drug toxicology panels provide a critical measure of recent drug use and are frequently employed to assess substance use in psychiatric inpatients. Yet, although toxicology tests provide a valuable assessment of illicit drug use, these methods are nevertheless limited. Windows of detection may be brief and vary across drug types. For instance, toxicology tests are typically unable to detect cocaine or methamphetamine use beyond a latency of 3 days (Hadland & Levy, 2016). Moreover, only a limited set of frequently used substances are typically assessed. Finally, tests are contingent upon patients' willingness to submit biological samples. Given these limitations, supplemental assessment methods may be valuable adjuncts to ensure accurate characterization of recent drug use.

Self-report measures may provide a valuable, time- and cost-efficient adjunct for assessing recent drug use in psychiatric inpatients. Research has shown that, in some populations, such as individuals with mild to borderline intellectual disability, self-reported substance use was highly concordant with biomarker assessment (VanDerNagel et al., 2017). The authors reported that both assessment methods were effective for identifying substance use, but participants were significantly more willing to characterize their drug use by written self-report than to submit biological samples. In one study, as many as 23% of patients were unwilling to submit urine toxicology samples, whereas only 6% declined to self-report their drug use (VanDerNagel et al., 2017). These results indicate that supplemental self-report measures may also provide opportunities to collect important drug use data not captured by toxicology screening. Furthermore, this method provides an opportunity to approach assessment in a collaborative as opposed to a prescriptive manner.

Although a range of research has indicated that self-report may provide valuable clinical data concerning illicit drug use, the accuracy of self-report has been found to vary substantially across assessment contexts (Mills, Loza, & Kroner, 2003; Napper, Fisher, Johnson, & Wood, 2010; Rendon, Livingston, Suzuki, Hill, & Walters, 2017; Smith, Schmidt, Allensworth-Davies, & Saitz, 2010; van den Berg et al., 2018). For instance, whereas self-report measures have been found to be reliable for detecting drug use in primary care, self-report has been shown to be less reliable in supportive housing residents (Rendon et al., 2017; Smith et al., 2010). Research concerning assessment methods is notably scarce in inpatient psychiatric units, where patients experience acute psychiatric impairment, treatment duration is often brief, and nursing staff must manage multiple responsibilities (Large, Ryan, & Nielssen, 2011; Naegle, 2015; O'Shea, Picchioni, & Dickens, 2016; Raven et al., 2010). This unique and demanding context requires assessment tools that can be quickly administered and interpreted and that provide targeted, clinically valuable information.

Released along with the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*), the *DSM-5* Level 2 Substance Use Adult assessment was designed as such a tool (American Psychiatric Association, 2018). Adapted from the National Institute on Drug Abuse's Modified Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) structured interview assessment, this measure provides a brief self-report of recent drug use, assessing the frequency with which an individual has used various drugs of abuse within the past 2 weeks (National Institute on Drug Abuse, 2018). Evidence from primary care supports the validity of self-reported drug use using a computer-based modified ASSIST, but to date, this measure has not been used in psychiatric inpatient units (McNeely, Strauss, Rotrosen, Ramautar, & Gourevitch, 2016). In this study, we sought to examine the utility of the *DSM-5* Level 2 Substance Use Adult screener in comparison with routine drug toxicology testing in an inpatient psychiatric hospital context. We hypothesized that this self-report measure would provide a reliable assessment of recent substance use, conferring additional predictive validity beyond drug toxicology screening alone. If so, this measure could be utilized by nurses working to assess substance use within psychiatric inpatient settings.

METHODS

Participants and Procedures

Participants were recruited as part of a larger study exploring physical health symptom clusters among inpatients at a free-standing psychiatric hospital in rural New England (Strainge et al., 2019). All participants in the current study were adult psychiatric inpatients receiving treatment for severe mental illness, suicidality, the need for medically supervised detoxification, or a combination thereof. Exclusion criteria included age younger than 18 years, inability to read and understand English, and inability to provide informed consent, as judged by unit nursing staff and/or our research team.

All study procedures took place in common areas of the inpatient unit during patient leisure time. In the interest of patient safety, researchers collaborated with nursing staff to identify individuals appropriate for the study, so as not to inadvertently interfere in patient treatment or negatively impact patient well-being. Researchers approached those individuals who had been identified as potentially appropriate by the nursing staff, explained the nature of the study, and asked if they would be interested in participating. Researchers were careful to emphasize the voluntary nature of the study, that decisions regarding participation would not impact patients' care, and that unit staff would not be informed whether or not they chose to participate. Study staff were also clear in identifying themselves as researchers unaffiliated with the hospital. Of the 115 patients directly approached by study staff, 86 chose to participate, a positive response rate of 73%. Several additional patients learned of the study through other patients or unit staff and approached researchers directly to participate. Those patients who volunteered to participate and were deemed eligible ($N = 98$) were given a detailed explanation of the study and provided informed consent.

After consent, participants completed a brief demographic questionnaire and study measures. Researchers were available to address questions or concerns while participants completed the measures. Participants were encouraged to complete study packets individually in a single sitting, to ensure data validity. Researchers then completed a brief chart review to extract additional clinical data, including current medications, diagnoses, detoxification protocols, and whether the participant was currently experiencing psychotic symptoms. The University of Connecticut Institutional Review Board approved all study procedures.

Measures

Substance use self-report Participants reported recent substance use using the adult form of the *DSM-5* Level 2 Substance Use Measure. As noted above, this measure is a brief, self-report questionnaire adapted from the National Institute on Drug Abuse's modified ASSIST (National Institute on Drug Abuse, 2018). Participants rated the frequency with which they had used each of the 10 substances listed (i.e., painkillers, stimulants, sedatives/tranquilizers, marijuana, cocaine/crack, club drugs, hallucinogens, heroin, inhalants/solvents, and methamphetamine) in the past 2 weeks. Prescription drug misuse was differentiated by asking participants to rate the frequency with which they used painkillers, stimulants, and/or sedatives/tranquilizers "without a doctor's prescription, in greater amounts or longer than prescribed." Frequency of use for each substance was rated on a scale from 0 (*not at all*) to four (*nearly every day*).

Toxicology testing Seventy participants (71% of the sample) underwent drug testing before hospital admission. Most participants tested for substance use (71% of those with toxicology results) were tested in an emergency department setting before being transferred to the psychiatric hospital. An additional 9% of tested participants underwent testing after transfer to the inpatient unit. Hospital charts did not specify the location of the remaining 20% of drug tests. Toxicology results were based on blood and urine samples, although methodologies varied somewhat across treatment settings. Toxicology chart data consistently included results for alcohol, marijuana, cocaine/crack, opioids, benzodiazepines, and barbiturates. Chart data occasionally included toxicology results for methamphetamine and phencyclidine (PCP) use, although these substances were not systematically tested for. Windows of detection for urine screening of these substances vary; most opioid drugs and synthetic opioids (e.g., fentanyl) are typically detected up to 3 days after use, with buprenorphine detected up to 1 week after use. Benzodiazepine sedatives are detected up to 1–2 weeks after use, whereas nonbenzodiazepine hypnotics such as zolpidem (Ambien) are detected up to 2 days after use. The window of detection for barbiturate drugs varies, ranging from 3 days (secobarbital) to 2 weeks (phenobarbital). Stimulant drugs typically have a 3-day window of detection, and PCP is typically detected up to 1 week after use. The window of detection for cannabinoids ranges from 4 days in casual users to several weeks in chronic users (American Addiction Centers, 2019).

Patient Health Questionnaire-9 Participants also completed the Patient Health Questionnaire-9 (PHQ-9), a widely used measure of depressive symptoms (Kroenke, Spitzer, & Williams, 2001). The PHQ-9 consists of nine self-report items that map onto the diagnostic criteria for major depressive disorder and asks how often the patient has been bothered by each symptom over the past 7 days. The PHQ-9 has been shown to have excellent psychometric properties and good clinical utility (Kroenke et al., 2001). A Cronbach's alpha of .875 indicated good internal consistency within our sample.

Analyses

Because of the time frame of the *DSM-5* Level 2 Substance Use Measure (i.e., the previous 2 weeks), participants were included in analyses only if they had been in the hospital for less than 14 days. This restriction limited the total sample to participants ($n = 60$) with at least 1 day outside the inpatient unit.

Participant characteristics are reported as means, standard deviations, and percentages based on count data. A response of one or more, indicating substance use on at least "1 or 2 days," was considered a positive self-report for each of the Level 2 Substance Use Measure drug classes. Sensitivity (percentage of cases identified) and specificity (percentage of noncases identified) for each drug class were calculated by comparing positive responses on the Level 2 Substance Use Measure with chart-abstracted toxicology screens. As the *DSM-5* Substance Use Screener uses lay terminology to assess types of drug use, drug classes were matched as follows: A toxicology test result for cocaine was compared with self-reported use of "cocaine or crack." A cannabis test result was compared with self-reported use of "marijuana." A positive benzodiazepine and/or barbiturate result was combined and compared with self-reported use of "sedatives/tranquilizers." A positive opiate result was compared with the combined self-report use of "painkillers (like Vicodin)" and "heroin." A test result for methamphetamine was compared with self-reported use of "methamphetamine (like speed)." Toxicology tests were not routinely conducted for amphetamines, 3,4-methylenedioxymethamphetamine, or other hallucinogens, and therefore sensitivity and specificity were not calculated for the self-reported categories "club drugs (like ecstasy)," "stimulants (like Ritalin, Adderall)," "hallucinogens (like LSD)," or "inhalants or solvents (like glue)." Chi-square and independent samples *t* tests were conducted to identify demographic and clinical variables significantly associated with accuracy of self-report. Statistical significance was set at $p < .05$ for all analyses.

RESULTS

Participant Characteristics

Demographic characteristics of the sample are reported in Table 1. Sixty adult psychiatric inpatients completed the *DSM-5* Level 2 Substance Use Measure and underwent a drug toxicology screen at the time of admission. Participants tended to be young ($M = 36$ years old), White (78%), heterosexual (83%), and never married (72%). The sample included a

TABLE 1 Demographic Characteristics of the Sample

	N = 60 *n* (%)
Age (years), mean (*SD*)	35.9 (14.1)
Gender	
Female	32 (53.3)
Male	28 (46.7)
Race	
European American/White	47 (78.3)
African American/Black	5 (8.3)
Native American	2 (3.3)
Asian/Asian American	1 (1.7)
Something else	3 (5.0)
Multiracial	2 (3.3)
Ethnicity	
Hispanic/Latino	3 (5)
Sexual orientation	
Heterosexual	46 (83.3)
Bisexual	8 (13.3)
Lesbian, gay, or homosexual	4 (6.7)
Something else	1 (1.7)
Do not know	1 (1.7)
Household annual income	
Under $15,000	27 (45)
$15,000 or greater	30 (50)
Employment status	
Not working	39 (65)
Working part-time	6 (10)
Working full-time	15 (25)
Education	
Seventh to 11th grade	6 (10)
12th grade or GED	18 (30)
Some college	23 (38.3)
Completed college	8 (13.3)
Graduate degree	5 (8.3)
Marital status	
Single	43 (71.7)
Divorced	10 (16.7)
Married	6 (10)
Partnered	3 (5)
Separated	2 (3.3)
Widowed	1 (1.7)
Residence status	
Private residence/stable	51 (85)
Homeless/staying at shelter	2 (3.3)
Residential sober housing	1 (1.7)
Homeless/other	5 (8.3)

(continues)

similar distribution of women (53%) and men (47%). Most participants were stably housed at a private residence at the time of admission (85%), had at least some college education (60%), and were not working (65%). A significant proportion of participants (45%) reported a household income of less than $15,000 (125% of state poverty line for a household of one, below state poverty line for a household of two or more; Semega, Fontenot, & Kollar, 2017).

Clinical characteristics of the sample are presented in Table 2. Participants were assessed, on average, 4 days after hospital admission. Hospital intake assessments suggested substantial psychiatric comorbidity in the study sample, with participants receiving between two and three psychiatric diagnoses on average. Alcohol use was common in our sample; more than half of participants (58%) registered a detectable blood alcohol content at the time of admission. Thirty-five percent of participants underwent a drug detoxification protocol during their hospitalization, most frequently for alcohol dependence (20% of sample), followed by opiate (12%) and benzodiazepine (8%) dependence. A mean PHQ-9 score of 14 indicated that, on average, participants reported moderate depressive symptoms at the time of participation. More than a quarter of participants (28%) exhibited psychotic symptoms at the time of intake assessment. Polypharmacy was common in this sample, with participants prescribed more than seven medications on average during their hospitalization.

Substance Use Prevalence

Table 3 compares drug use prevalence in the study sample as measured by toxicology screening and by patient self-report using the *DSM-5* Level 2 Substance Use Measure. Overall, 60% of the sample tested positive for drug use, including marijuana (38%), benzodiazepines (23%), opiates (12%), cocaine (10%), and PCP (2%). In comparison, 51% of the total sample self-reported using at least one substance listed on the *DSM-5* measure within the past 2 weeks, most frequently endorsing use of marijuana (38%), sedatives/tranquilizers (25%), and opioid drugs including painkillers and heroin (23%).

Utility of the DSM-5 Self-Report Measure

Most of the sample ($n = 45$, 75%) self-reported substance use consistent with their toxicology screen results; 21 participants (35%) tested positive for substances, which they also self-reported using

TABLE 2 Clinical Characteristics of the Sample	
	***N* = 60 Mean (*SD*)/*n* (%)**
Days since admission	3.9 (2.5)
Psychiatric diagnoses	2.6 (1.2)
Current medication count	7.2 (4.1)
Patient Health Questionnaire-9 (0–27)	14.1 (7.3)
Psychotic symptoms at the time of assessment	17 (28.3%)
Detoxification status	
Any detox	21 (35%)
Alcohol detox	12 (20%)
Opiate detox	7 (11.7%)
Benzodiazepine detox	5 (8.3%)
Blood alcohol content at admission	
0	25 (41.7%)
>0	14 (23.3%)
Not assessed	21 (35%)

in the past 2 weeks. Another 24 (40%) denied substance use on the self-report measure and showed a negative toxicology screen. The final 15 participants (25%) showed discrepant reporting—screening positive for a substance that they had not endorsed using in the past 2 weeks. Among these 15 participants, nine (60%) tested positive for benzodiazepines yet did not endorse "sedative/tranquilizer" use in the past 2 weeks. Four (27%) tested positive for cannabis—the most commonly used substance within the study sample. Three participants (20%) screened positive for cocaine yet did not endorse "cocaine or crack" use in the past 2 weeks. In addition to discrepant responses, five participants skipped or omitted a single item on the *DSM-5* self-report measure. Of these five, one participant screened positive for the substance omitted (cannabis). No differences in underreporting rates were observed across detoxification status. In addition, participants who exhibited psychotic symptoms at hospital intake assessment were no more likely to underreport their substance use. Depressive symptoms, as assessed using the PHQ-9, were not significantly predictive of underreporting (all *p*s > .05).

We next examined the sensitivity and specificity of the *DSM-5* measure for detecting use of each of the drug classes assessed (Table 4). For opioid drug use, the *DSM-5* self-report measure showed 100% sensitivity, as all seven participants who screened positive for opiate use also self-reported heroin use, either alone or in combination with painkillers. Of 51 participants who tested negative for opiate use, 46 self-reported no use of heroin or painkillers (90.2% specificity). The *DSM-5* measure also showed good sensitivity and specificity for the identification of cannabis use, as 83% of patients who tested positive for cannabis self-reported use in the past 2 weeks and 89% of those who tested negative reported no recent marijuana use. The *DSM-5* measure showed poorer sensitivity for identification of cocaine/crack (50%) and sedative/tranquilizer (37%) use, although specificity remained excellent for cocaine/crack (96%) and acceptable for sedatives/tranquilizers (78%).

In 27 instances, participants self-reported use of a substance that was not identified by drug toxicology screen—in some instances, because of a negative toxicology screen and, in others, because of endorsing substance use not routinely assessed by toxicology screen. Five participants reported use of either heroin (3), painkillers (1), or both (1) in the past 2 weeks yet tested negative for opioids. Four participants endorsed undetected marijuana use, two reported undetected cocaine use, and 10 reported "sedative/tranquilizer" use but tested negative for both benzodiazepines and barbiturates.

The *DSM-5* measure also assessed a number of substances not routinely assessed by toxicology screen. Four inpatients (7%) self-reported stimulant drug use in the past 2 weeks, and two (3%) reported methamphetamine use. One patient self-reported hallucinogen use on the *DSM-5* measure, and a nonroutine toxicology test confirmed this participant screened positive for PCP. No participants reported use of club drugs or inhalants/solvents, neither of which was assessed by toxicology screen.

DISCUSSION

This study is the first, to date, to examine the clinical utility of the *DSM-5* Level 2 Substance Use Adult screener for detecting

TABLE 3 Prevalence of Substance Use by Toxicology Screen and by DSM-5 Self-Report		
	Positive Drug Screens *n* (%)	**Positive Self-Reports *n* (%)**
Any drug use	36 (60)	31 (51.7)
Cannabis/marijuana	23 (38.3)	23 (38.3)[a]
Sedatives or tranquilizers	14 (23.3)	15 (25)[a]
Benzodiazepines	14 (23.3)	–
Barbituates	0 (0)	–
Opiates	7 (11.7)	14 (23.3)[a]
Pain killers	–	3 (5)[a]
Heroin	–	11 (18.3)[a]
Cocaine/crack	6 (10)	5 (8.3)[a]
Stimulants	NRT	4 (6.7)
Methamphetamine	NRT	2 (3.3)
Hallucinogens/PCP	1 (1.7)	1 (1.7)
Club drugs	NRT	0 (0)
Inhalants/solvents	NRT	0 (0)

Note. DSM-5 = Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition; NRT = not routinely tested; PCP = phencyclidine.

[a]Only 59 participants completed this item; percent calculated from the total sample (*N* = 60).

TABLE 4 Sensitivity and Specificity of the DSM-5 Level 2 Substance Use Measure vs. Toxicology Screen

Opiates (*N* = 58)	**Negative Toxicology Screen**	**Positive Toxicology Screen**
Denied both painkiller and heroin use	46	0
Endorsed painkiller use only	1	0
Endorsed heroin use only	3	6
Endorsed both painkiller and heroin use	1	1
100% sensitivity, 90.2% specificity		
Cannabis (*N* = 59)	Negative Toxicology Screen	Positive Toxicology Screen
Denied use	32	4
Endorsed use	4	19
82.6% sensitivity, 88.9% specificity		
Cocaine/Crack (*N* = 59)	Negative Toxicology Screen	Positive Toxicology Screen
Denied use	51	3
Endorsed use	2	3
50% sensitivity, 96% specificity		
Sedatives/Tranquilizers (*N* = 59)	Negative Toxicology Screen	Positive Toxicology Screen
Denied use	35	9
Endorsed use	10	5
35.7% sensitivity, 77.8% specificity		
Hallucinogens (*N* = 60)	Negative or No Toxicology Screen	Positive Toxicology Screen
Denied use	59	0
Endorsed use	0	1*
Methamphetamine (*N* = 60)	No Routine Toxicology Screen	
Denied use	58	
Endorsed use	2	
Stimulants (*N* = 60)	No Routine Toxicology Screen	
Denied use	56	
Endorsed use	4	
Club Drugs (*N* = 60)	No Routine Toxicology Screen	
Denied use	60	
Endorsed use	0	
Inhalants/Solvents (*N* = 60)	No Toxicology Screen	
Denied use	60	
Endorsed use	0	

Note. DSM-5 = Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.

recent drug use among psychiatric inpatients. Our study evaluated the reliability of the brief, self-reported *DSM-5* screener in comparison with drug toxicology testing. The results of our study indicate that the *DSM-5* Substance Use screener has clinical utility for identifying substance use by self-report in adult psychiatric inpatients, although the reliability of the measure varied by substance use type. The *DSM-5* screener showed high reliability for detection of substances such as opioid and cannabis use (100% and 83% sensitivity, respectively) yet poorer reliability for cocaine/crack and sedative/tranquilizer use (50% and 36% sensitivity, respectively). The measure likely identified sedatives/tranquilizers less accurately because of the instrument's use of broad lay terms, potentially creating uncertainty as to whether certain drug classes fell under this label. For instance, participants may or may not have categorized benzodiazepines as "sedatives/tranquilizers," whereas other (nonassessed) substances may have caused participants to select this item (e.g., sleep medications such as zolpidem

(Ambien), cough medicines containing dextromethorphan). Regardless, 75% of patients in the study sample accurately reported use of all substances identified by the toxicology screen.

In addition to reliably detecting opioid drugs and cannabis, the *DSM-5* measure showed additional utility by indicating numerous cases of drug use not detected by toxicology assessment. In 21 instances, participants self-reported use of drugs for which they tested negative, and in another six instances, participants self-reported use of substances that were not assessed by toxicology screen (i.e., four cases of stimulant use and two cases of methamphetamine use). Although these instances could not be verified as true positives, they represent critical opportunities to conduct an additional assessment to identify high-risk substance use that might otherwise go undetected. For instance, five participants self-reported opioid drug use in the past 2 weeks after testing negative during toxicology screening (including four cases of self-reported heroin use). Although these cases cannot be verified as true positives, they underscore the increasing need for health care providers to assess for a number of substances that may go undetected by routine drug screening (e.g., synthetic opioids such as fentanyl, synthetic cannabinoids/"K2"/"spice," or instances in which the substance use occurred outside the window of detection for reliable toxicology results; Bonar, Ashrafioun, & Ilgen, 2014; Hadland & Levy, 2016). Accurate detection is particularly critical within acute care settings, where linkage to care can be readily facilitated and patients may be most motivated to initiate treatment (Berman, Forsberg, Durbeej, Källmén, & Hermansson, 2010; Timko, Below, Schultz, Brief, & Cucciare, 2015). Our data indicate that brief self-report may improve assessment of drug use in such settings.

Our study should be interpreted in light of some limitations. First, our study sample may not be representative of all patients in inpatient psychiatric hospital settings. Research staff coordinated with hospital nursing staff to safeguard participant well-being and assess ability to consent before approaching patients about study participation; thus, the reliability of the *DSM-5* screening tool may not generalize to the most severely impaired patients. Nevertheless, our study represents the range of patients most likely to be approached for supplemental assessment in the course of routine care. Second, assessment of drug use by toxicology screen and self-report assessment did not occur in parallel. We assessed participants at various times after admission and restricted our sample to patients who had been admitted less than 2 weeks before assessment to account for the 2-week window of recall specified by the *DSM-5* screener. As a result, some underreporting may have been attributable to this time discrepancy rather than inaccurate reporting. Finally, demand characteristics of the study may have influenced rates of reporting. Participants were informed of the confidentiality of their responses during informed consent and assured that their answers would not influence the care they received. This allows for the possibility that participants may have answered differently if they had been assessed during the course of routine clinical care as opposed to during research involvement. Given the socially stigmatized nature of substance use, underreporting of this risk behavior may occur with greater frequency when tied to health care practice (Chen, Fang, Shyu, & Lin, 2006; Sherman & Bigelow, 1992).

Despite these limitations, this study provides preliminary evidence to support use of self-report measures of substance use such as the *DSM-5* screener in an inpatient psychiatric setting. Improving assessment of drug use in contexts such as psychiatric inpatient hospitals offers critical opportunities to facilitate substance use treatment initiation and improve patient outcomes (Kolodny et al., 2015). Our study found that the *DSM-5* Level 2 Substance Use self-report measure shows promising utility for detection of drug use within this critical treatment context. In particular, results suggested that individuals undergoing inpatient opioid detoxification are accurate reporters of their substance use, as measured by the *DSM-5* measure. Moreover, the measure was quickly and easily administered and was found to be acceptable to psychiatric inpatients. Future research should build upon the current findings by assessing this tool in larger and more diverse patient samples, in addition to examining its utility during the course of routine care as delivered by psychiatric nursing staff. Future research may also explore whether discrepant self-reporting of drug use in psychiatric inpatient care settings might offer prognostic value, perhaps serving as a proxy measure of motivation to pursue treatment. Self-report measures such as the *DSM-5* Level 2 Substance Use Adult screener may serve as valuable clinical tools to assist psychiatric nurses in identifying SUDs and improving referral and treatment planning for psychiatric inpatients who use substances.

Acknowledgments: We would like to thank the hospital nursing staff who played a vital role in ensuring that patient rights and safety were maintained and respected during study recruitment. We would also like to thank those who volunteered their time to participate in this research study. We would finally like to thank Mairead Deacy and Samantha McKeith for their contributions to this research effort.

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