

Mental Health Services Use and Symptom Prevalence in a Cohort of Adults on Probation

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Objective: This study examined the prevalence of mental disorder symptoms among adult probationers and the probability of mental health service use. **Methods:** Data from the 2001 National Household Survey on Drug Abuse were used to obtain information on adults reporting mental disorder symptoms who had been on probation within the past year and those who had not. **Results:** Twenty-seven percent of probationers (N=311 of 1,168) and 17% of nonprobationers (N=5,830 of 34,230) had mental disorder symptoms. Mental health service use was reported by 23% of both groups. Compared with persons who had not been on probation, probationers were more likely to report psychosis, mania, and post-traumatic stress disorder; both groups were as likely to report depression. **Conclusions:** The prevalence of mental disorder symp-

toms did not differ by probation status. However, the type and distribution of symptoms were significantly different in the two groups. These are important considerations when planning for service connection with mental health providers. (*Psychiatric Services* 60:542–544, 2009)

Although researchers, policy makers, and clinicians recognize the high prevalence of mental disorders among incarcerated individuals, there has been little work to assess the burden of such conditions among persons placed on probation, the most common sentencing option used in the criminal justice system. To our knowledge only one study has provided estimates for the prevalence of mental disorders and the use of mental health services among probationers. Using data from the 1995 Survey of Adults on Probation, Ditton (1) found that 16% of individuals on probation reported having a mental health condition, as measured by reporting that they had been informed by a health professional they had a mental disorder or by reporting that they had spent at least one night in an inpatient psychiatric setting. More than half (56%) of this group reported using some kind of mental health service in the community. These findings pose an interesting paradox if taken at face value. When these findings are compared with a Surgeon General report on the general popu-

lation during the same period (2), the rate of mental disorders is lower among persons on probation than in the general population (16% versus 21%), although the rate of mental health services use is more than twice as high (56% versus 23%).

In this study, we used a robust data set to examine among past-year probationers the prevalence of symptoms indicative of mental disorders, including an analysis of their type and the frequency of mental health services use. For the purposes of this study, we hypothesized that symptom prevalence, types of symptoms, and mental health service use would be the same or greater among probationers than among the general population.

Methods

We used data from the 2001 National Household Survey on Drug Abuse (NHSDA) (3), a weighted, nationally representative annual survey of U.S. residents aged 12 years and older. The 2001 survey contains questions about symptoms of mental disorders, mental health service use, and criminal justice involvement. From this data set we identified adults between 18 and 64 years who reported past-year symptoms of panic, depression, phobia, general anxiety, posttraumatic stress disorder (PTSD), mania, and psychosis. For these categories, symptom severity was rated as none, mild, moderate, and high. Respondents also rated impairment of functioning (no difficulty, mild, moderate,

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and severe difficulty) for five domains: learning, activities of daily living, leaving the house, household responsibilities, and school and work performance. We established “case-ness” (4) for membership in the cohort on the basis of a minimum set of entry responses, including at least one symptom of mild severity with a mild impact on functioning.

Respondents reported involvement with probation, with and without arrest, during the past year. We excluded from the sample 295 individuals who reported mental disorder symptoms and arrest but no probation. Mental health service use was defined as at least one visit to a mental health center, private therapist, outpatient mental health service, or day treatment program. We rated mental health service use in a conservative fashion by excluding substance and

general health services, categories well separated in the NHSDA interview. Data management and analyses were conducted with SAS, version 9.0. Probability comparisons for study groups regarding symptom prevalence and service use were analyzed with chi square tests.

Results

Results are reported in Table 1. Of the NHSDA adult population (N=35,693), 1,168 (3.3%) reported probation involvement during the past year. Of this group, 311 (26.6%) met our criteria for caseness (that is—had at least one symptom of mild severity with a mild impact on functioning). Within the general sample of the NHSDA not having any criminal justice involvement (N=34,230), 5,830 (17.0%) were classified as fulfilling our criteria. Compared with the group without past-year

probation, the group with past-year probation was more likely to be younger, male, and nonwhite and to use drugs. Compared with the nonprobation group, the probation group also was significantly more likely to report symptoms of psychosis ($p=.001$), mania ($p=.001$), and PTSD ($p=.001$) but significantly less likely to report general anxiety ($p=.04$). There was no difference between the two groups in reports of symptoms of depression, panic, or phobia.

There was also no difference in mental health services use across groups. Among the 311 probationers, 26 of the 140 (18.6%) who had not been arrested in the past year and 46 of the 171 (26.9%) who had been arrested in the past year sought mental health care, compared with 1,337 (22.9%) of those without criminal justice involvement.

Table 1

Comparison of demographic characteristics, service use, and mental health symptoms among NHSDA respondents with past-year mental health symptoms, by past-year probation status^a

Variable	No arrest and no probation (N=5,830)		Probation only (N=140)		Both arrest and probation (N=171)		χ^2	df	p
	N	%	N	%	N	%			
Age									
18–25	3,120	53.5	95	67.9	127	74.3	42.6	4	.001
26–34	964	16.5	23	16.4	15	8.8			
35–64	1,746	29.9	22	15.7	29	17.0			
Gender									
Male	1,949	33.4	84	60.0	121	70.8	140.7	2	.001
Female	3,881	66.6	56	40.0	50	29.2			
Race or ethnicity									
White	4,367	74.9	86	61.4	100	58.5	48.8	6	.001
Hispanic	575	9.9	30	21.4	29	17.0			
African American	535	9.2	14	10.0	31	18.1			
Other	353	6.1	10	7.1	11	6.4			
Use of illicit drugs									
Yes	866	14.9	31	22.1	74	43.3	105.1	2	.001
No	4,964	85.1	109	77.9	97	56.7			
Mental health service use									
Yes	1,337	22.9	26	18.6	46	26.9	4.03	2	ns
No	4,493	77.1	114	81.4	125	73.1			
Reported symptoms									
Depression	3,681	63.1	91	65.0	113	66.1	.8	2	ns
Phobia	2,743	47.0	65	46.4	88	51.5	1.3	2	ns
Panic	2,634	45.2	67	47.9	89	52.0	3.5	2	ns
Posttraumatic stress disorder	2,549	43.7	68	48.6	101	59.1	16.9	2	.001
General anxiety	2,439	41.8	45	32.1	64	37.4	6.5	2	.04
Psychosis	1,287	22.1	52	37.1	75	43.9	60.6	2	.001
Mania	574	9.8	26	18.6	47	27.5	64.7	2	.001

^a NHSDA, National Household Survey on Drug Abuse (2001). Sample included those with at least one symptom of a mental disorder of mild severity and a mild impact on functioning. Analyses excluded 295 respondents who reported symptoms of a mental disorder and arrest but no probation.

Discussion

Among all adults in the 2001 NHSDA, 18% (N=6,141) reported mental disorder symptoms and fulfilled our criteria for caseness. This rate is lower than the rate of diagnosable mental disorders reported by the Surgeon General (2) (21%). Our study showed higher rates of mental disorder symptoms among those with past-year probation than Ditton's study of probationers (1) (27% versus 16%); yet the probationers in our sample had service use levels far lower than Ditton's sample (23% versus 56%).

The broader scope of data available in the NHSDA allowed us to examine symptoms in greater detail, although the level of co-occurrence of symptoms noted in Table 1 underscores a need for cautious interpretation. We found that the distribution of symptoms among probationers differed from the distribution among those without probation involvement, with probationers being more likely to report having psychosis, mania, and PTSD symptoms in the past year and less likely to report having general anxiety. Depression was the most commonly reported symptom and was roughly equal across groups. High rates of reported depression and mania in the group with past-year probation might suggest a greater prevalence of bipolar disorder, but this must be viewed in a tentative fashion, given the nature of the self-report data. The high rate of psychosis in the probation group may point to the presence of people with severe, persisting mental disorders, perhaps similar to other populations to which specialized intervention programs have been offered (5,6), although this cannot be confirmed from this data set. These findings also underscore the importance of continued development of specific practice

guidelines for persons with past-year probation (7).

Beyond the limitations noted above, this study has several important limitations. First, the nature of data collection did not allow examination of the temporal sequence of probation or arrest events and mental health service use. Second, we are acutely aware that symptom prevalence is not a proxy for diagnosis, despite our efforts to establish parameters for caseness. Third, as with the symptom reports, service use was self-reported, although the literature supports the reliability of such data for this population (8). Fourth, although the overall sample was nationally representative, there was no readily available method to verify whether subgroup data were representative. (We chose this particular survey because its sampling methods were sufficiently rigorous to at least allow this possibility.) Fifth, the survey did not clearly delineate the source of referral for mental health services. It is possible that some originated from the court system; few, however, would have come from specialized mental health courts because these were new and uncommon in 2001 (9), the year of the NHSDA data collection. Finally, differences in service use may be an artifact because we excluded substance use, medical, and all other treatments in this analysis, as well as persons arrested in the past year but not placed on probation.

Conclusions

On the basis of this sample, the prevalence of symptoms indicative of mental disorders was higher among probationers than in the general population. The type and distribution of reported symptoms were significantly different between those who had been on probation in the past year

and those who had not. These are important considerations for probation departments when planning mental health service connections.

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The authors report no competing interests.

References

1. Ditton PM: Mental Health and Treatment of Inmates and Probationers: US Department of Justice Special Report. Pub no NCJ-174463. Washington, DC, Department of Justice, 1999. Available at www.ojp.usdoj.gov/bjs
2. Mental Health: A Report of the Surgeon General. Rockville, Md, Department of Health and Human Services, US Public Health Service, Office of the Surgeon General, 1999
3. National Household Survey on Drug Abuse. Rockville, Md, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2001. Available at www.oas.samhsa.gov/nhsda.htm
4. Kendell RE: What is a case? *Archives of General Psychiatry* 45:374-376, 1988
5. Lamberti JS, Weisman R, Faden DI: Forensic assertive community treatment: preventing incarceration of adults with severe mental illness. *Psychiatric Services* 55:1285-1293, 2004
6. Hiday VA: Outpatient commitment: the state of empirical research on its outcomes. *Psychology, Public Policy, and Law* 9:8-32, 2003
7. Skeem JL, Louden JE: Toward evidence-based practice for probationers and parolees mandated to mental health treatment. *Psychiatric Services* 57:333-342, 2006
8. Crisanti A, Laygo R, Junginger J: A review of the validity of self-reported arrests among persons with mental illness. *Current Opinion in Psychiatry* 16:565-569, 2003
9. Petrila J, Poythress N, McGaha A, et al: Preliminary observations from an evaluation of the Broward County Mental Health Court. *Court Review* 37:20-28, 2000