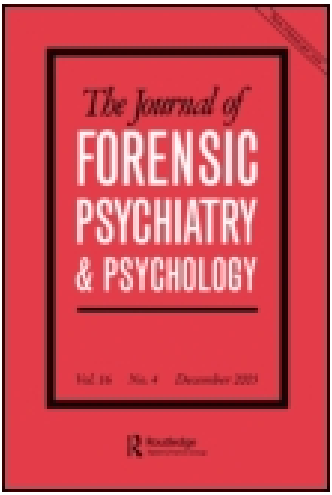


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# Prevalence and severity of substance misuse among referrals to a local forensic service

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# Prevalence and severity of substance misuse among referrals to a local forensic service

SARAH ISHERWOOD and DEBORAH BROOKE

ABSTRACT Substance misuse is frequently present alongside mental illness and personality disorder, complicating all aspects of management. We describe self-reported levels of substance misuse in referrals to a forensic psychiatry service, to establish degrees of dependency and co-morbidity with other diagnostic categories and to report the implications for treatment. There were 146 (70%) of 209 consecutive referrals who completed a semi-structured questionnaire, including the Alcohol Use Disorders Identification Test (AUDIT), Severity of Alcohol Dependency Questionnaire (SADQ), Alcohol Problem Questionnaire (APQ) and, for frequent users of opiates or stimulants, the Severity of Dependence Scales (SDS). Psychiatric diagnoses were made from clinical assessment using the *International Classification of Diseases* (World Health Organization, 1992). ICD-10 diagnoses of substance misuse were found in 83 (57%) subjects. A combination of mental illness and a substance misuse diagnosis was found in 54 (37%). The subgroup accepted into forensic psychiatric services was found to have higher levels of co-morbidity, although levels of dependency were low. Forensic services need expertise in assessing drug-related morbidity; in motivational interviewing and other techniques for encouraging change; and in consolidating recovery.

Keywords: substance misuse, co-morbidity, severity of dependency, inpatient management

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Rates of substance misuse are known to be increasing generally (Home Office, 1997). Although comparison between studies is difficult as different criteria for substance misuse have been used, in adults with a psychotic illness in the community the prevalence has been estimated at 11% for drinking over the recommended limits and 11% for using any illicit drug (Foster *et al*., 1996). In adults presenting with the first episode of psychosis the prevalence of substance misuse is 37% (Cantwell *et al*., 1999). In prison populations, Gunn *et al*. (1991) gave an estimate of 23% for substance misuse (ICD-9) among sentenced prisoners, and studies among remanded prisoners suggest that about one-third have harmful use or dependence (Brooke *et al*., 1996: Mason *et al*., 1997).

This survey examined the extent and severity of drug and alcohol misuse among patients referred to a forensic psychiatry service in south-east London. We describe the implications for forensic psychiatry services.

## METHOD

Data were collected at a semi-structured interview on all consenting consecutive referrals over a 5-month period. The first section of the questionnaire collected demographic details, source and reason for referral, the charge or conviction, and details of contact in the last year with substance misuse services and any previous psychiatric contact. The diagnosis and clinical recommendation from the accompanying clinical assessment was recorded.

In the second part of the questionnaire, all subjects completed an alcohol-screening questionnaire, the Alcohol Use Disorders Identification Test (AUDIT; Saunders *et al*., 1993). The interviewer immediately scored this and subjects who scored 8 or more, i.e. whose drinking could be described as hazardous or harmful (Conigrave *et al*., 1995), completed two further questionnaires, the Severity of Alcohol Dependence Questionnaire (SADQ; Stockwell *et al*., 1979 and Stockwell *et al*., 1983) and the Alcohol Problem Questionnaire (APQ; Drummond, 1990). Only the general section of the APQ was used, as the questions about employment, cohabiting partners and children were not often relevant for these subjects.

All individuals were asked about their use of a range of drugs in the previous 6 months, or the last 6 months prior to admission to hospital or prison. Subjects who reported daily or almost daily use of opiates or stimulants then completed the Severity of Dependence Scales (SDS; Sutherland *et al*., 1986) for each class of drug. Individuals were interviewed at the first point of contact, or as soon as possible thereafter. This included outpatient departments, inpatient wards (general adult, intensive care, medium-security and Special Hospital), and the psychiatric court liaison service provided at three local magistrates' courts. Assessments in the local prison (Belmarsh) were also included.

Where consent was not obtained, demographic details and the reason for non-completion were recorded. Subjects viewed as 'too unwell' at the time of initial contact were reassessed at a later date within the study period by the first author. If they remained too unwell no further enquiry occurred. Information was available from clinical assessments on a further 70 patients seen within this time period.

Ethical approval was obtained both at a local level and from the Home Office, as a proportion of subjects would be interviewed in a custodial setting.

Data were analysed in SPSS for Windows.



## RESULTS

### General information on the subjects

The service saw 209 people in the time period. In 146 cases consent was obtained.

Reasons for non-completion of the questionnaire were: refused (7), too unwell (12) and other (44), including 9 subjects who were at other prisons. The most frequent reason for 'other' was lack of time; this was a particular problem when the only contact with a subject was at a magistrates' court.

Of the 146 cases, 140 (95%) were men. The mean age was 34.8 years (range 18.2 to 64.3 years). In terms of ethnicity 84 (58%) were white, 34 (23%) Black Caribbean, and 28 (19%) 'Other'.

There were 84 subjects (58%) who were referred by the court, the probation service or solicitors, 41 (28%) from HMP Belmarsh, and 21 (14%) who were referred by psychiatrists. Over two-thirds of the sample were seen at the magistrates' court or in a prison setting. Subjects were seen at all stages of their progress through the criminal justice system, both pre and post conviction, so some of the charges had not yet come to court. Index offences (relevant for 137 subjects) were of a violent nature in about one third (57, 39%). About another third were accused of theft and property offences including arson (47, 32%). The remainder were charged with sexual and other offences (33, 23%). Seven (5%) were referred for risk assessments. The alleged offence was missing in 2 (1%) cases.

### The extent of substance misuse

Almost one-half of subjects ($n = 61$; 42%) scored 8 or more on the AUDIT questionnaire indicating harmful use of alcohol. The mean score in the general section of the Alcohol Problem Questionnaire for these 61 subjects was 11; that is, they had an average of 11 social problems attributable to their

drinking. For comparison purposes, patients in specialized alcohol treatment settings score an average of 11 in this section of the APQ (Drummond, 1990). Present or past drug use, including cannabis, was reported by 110 (75%) of the subjects, including 29 (20%) using intravenously. There were 44 subjects (30%) who reported daily or almost daily use of stimulants and 27 subjects (18%) who reported daily or almost daily use of opiates in the last 6 months.



## ICD-10 diagnoses

The ICD-10 diagnoses for the samples are shown in Table 1.

An ICD-10 substance misuse diagnosis was made in 83 (57%) cases. Multiple misuse diagnoses occurred in 57 subjects (39%). In 29 subjects (20%) substance misuse was the sole diagnosis. 'Dual diagnosis', that is, a combination of mental illness and substance misuse, was found in 54 (37%).

## Severity of dependency

In the group identified by the AUDIT as hazardous drinkers (that is, scoring 8 and over; $n = 61$), the mean score on the SADQ was 18 (SD = 13.3, range 0–56). The SADQ has a maximum possible score of 60. For the APQ general section the mean score was 10.6 (SD = 5.5, range 0–21). The APQ maximum score in the general section is 23. Daily or almost daily opiate use was reported by $n = 27$ (18%). The mean score on the severity of dependency

*Table 1* ICD-10 diagnoses among referrals to a local forensic service

| *ICD-10 diagnosis* | *Number of subjects (%) n = 146* |
|---|---|
| 10.1: harmful use of alcohol | 25 (17) |
| 10.2: alcohol dependency | 26 (18) |
| 11.1: harmful use of opiates | 7 (5) |
| 11.2: opiate dependency | 15 (10) |
| 14.1 and 15.1: harmful use of stimulants | 20 (14) |
| 14.2 and 15.2: stimulant dependency | 18 (12) |
| 20.0: schizophrenia | 40 (27) |
| 25.0 and 29.0: schizoaffective disorders | 14 (10) |
| 31 and 32: affective disorders | 24 (16) |
| 41 and 43: neurotic disorders | 4 (3) |
| 60–60.9: personality disorders | 18 (12) |
| 70: mental retardation | 1 (1) |
| No psychiatric diagnosis made | 12 (8) |

*Note* Subjects could have more than one diagnosis.

scale for this group was 7.7 (SD = 4.5, range 0–15). There were 44 subjects (30%) who reported daily or almost daily use of stimulants. On the severity of dependency scale the mean was 5.4 (SD = 4.7, range 0–15).

### Previous treatment or contact with substance misuse services

Of the group with an ICD-10 diagnosis of harmful use or dependence ($n$ = 83), 40 had sought help for this in the last year. Help was most frequently sought from general psychiatric services ($n$ = 18), and drug and alcohol agencies ($n$ = 17). Only a small number reported visiting either their GP or an A&E department ($n$ = 10), and 5 subjects reported obtaining other treatment for their problem. Eleven subjects had attended more than one service.

### Implications for forensic psychiatric services

After the initial assessment, 38 subjects stayed in treatment with forensic services, 30 of whom had a major mental illness. Over half of this group had a co-morbid substance misuse diagnosis. A further 4 subjects had a co-morbid diagnosis of substance misuse and personality disorder. The most frequent problems in this group were with stimulants and alcohol. Levels of dependency, though measurable, were low (mean dependency score for stimulants was 5, range 0–12, $n$ = 15; the mean dependency score for alcohol was 12, range 2–26, $n$ = 12). Four subjects used opiates on a daily or almost daily basis; the mean score on the severity of dependence scale was 8.5, range 5–12.

### Non-completing group

Background characteristics of this group were compared, in terms of racial origin, sex, source of referral and the nature of the offence, with the study group. No significant difference was found between the groups apart from the referral source. This had been expected due to the difficulties with assessments in the magistrates' court.

## DISCUSSION

Among referrals to a local forensic service, 57% had an ICD-10 diagnosis of substance misuse and 37% had a co-morbid mental illness. In the referrals subsequently accepted into forensic psychiatry services, about half had clinically significant levels of substance misuse, albeit with low to moderate levels of dependency. Of subjects with substance misuse, half had sought help in the previous year. Thus referral to forensic services may be the first opportunity to address substance-related problems. The severity of dependence of

substance misusers appears to be lower than in individuals presenting to substance misuse services who do not have a co-morbid mental illness.

## Substance misuse, mental illness and outcome

The prevalence reported here is similar to previous work among detained patients (Wheatley, 1998), and larger than that found in general adult psychiatric services (Menezes *et al*., 1996).

A variety of factors may contribute to substance misuse by people with a mental illness. Drugs and alcohol may facilitate social interactions (Bergman and Harris, 1985; Test *et al*., 1989). They may be a means of self-medicating for anxiety, boredom and psychotic symptoms, or improving negative symptoms (Dixon *et al*., 1990), and reducing neuroleptic side-effects (Miller and Tannenbaum, 1989). It has been proposed that the rates of use have increased since deinstitutionalization to assist integration into society (Bachrach, 1986).

Patients with mental illness and co-morbid substance misuse have a worse prognosis. They are less compliant with outpatient treatment (Miller and Tannenbaum, 1989); their clinical and social outcome may be worse than those with severe mental illness alone (Lehman *et al*., 1993); they have heavy use of emergency and inpatient services (Bartels *et al*., 1993; Menezes *et al*., 1996); and inpatient episodes of suicidal or violent behaviour are more frequent (Yesavage and Zarcone, 1983). The rates of offending and imprisonment are higher and an association has been found between co-morbidity and homelessness (Tessler and Dennis, 1989). There is a relationship (possibly mutually reinforcing) between non-compliance and continuing substance misuse. Johns completed a comprehensive review of the international literature on the relationship between substance misuse, mental illness and violence (Johns, 1997) and discussed the implications of the findings for risk management and service provision. A review of homicide enquiries found that, in the majority of cases discussed, the patient had a history of substance misuse, and it was a major contributing factor to the homicide in over half (Ward and Applin, 1998). The National Confidential Enquiries have emphasized the need for co-ordinated care for people within local services. None the less, the difficulties of managing co-morbid substance misuse in non-specialized services are significant: Drake (Drake, Bartels *et al*., 1993; Drake *et al*., 1996) identified a lack of staff training, experience and confidence in managing patients with substance misuse problems.

## Limitations of the study

The levels of substance misuse reported by subjects in this study were not subject to external validation. They may have been influenced by a desire for

social acceptance and recall bias. Levels of drug use are under-reported in criminal justice settings (Wish, 1988). The refusal rate was low but there were subjects who were not able to complete the questionnaire due to difficulties with interviewing in magistrates' courts and further interviews with this group proved difficult to arrange. ICD-10 diagnoses were made from the clinical assessment without standardized interviews except with respect to the questionnaires described for substance misuse.



## Implications for practice

The finding of moderate levels of severity of dependence among these subjects does not imply that it is easy for them to cut down or stop. On the contrary, these scores are evidence of established dependency syndromes. Treatment needs to be diverse, developing a wide range of skills including social and practical skills, coping and problem-solving techniques, education about substance misuse, motivational interviewing and goal-setting for decreased substance misuse and training in behavioral skills for relapse prevention. The impact of motivational and cognitive deficits associated with severe mental illness needs to be minimized. Treatment should be available to inpatients and outpatients. This has substantial implications for staff training in forensic psychiatric services. Lastly, the effectiveness of techniques for this patient group should be evaluated.

Few well-controlled trials of specific interventions have been done. The central feature of current models is the delivery of integrated care both for severe mental illness and substance misuse by the same team (Drake, Bartels *et al*., 1993; Drake, McHugo *et al*., 1993; Drake *et al*., 1996). A Dutch team has reported encouraging results in an experimental treatment package used in a small group of admissions to a forensic psychiatric unit where 50% of patients have a substance misuse disorder (Van der Laan and Janssen, 1996). Some recent pilot studies and projects in the USA have provided equivocal results and there is difficulty in assessing longer-term benefits with relatively short follow-up periods. There is, however, a broad consensus about the general requirements for effective treatment. Specialized care and treatment can be conceptualized as an ongoing process. Marshall (1998) suggested the development of closer links between addiction and general adult services, particularly the provision of extra training and supervision in addiction treatment techniques for mental health workers and the attachment of a specialist dual diagnosis keyworker. The skills of both substance misuse and forensic services should complement each other in risk assessment and continuing management.

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## REFERENCES

Bachrach, L. L. (1986) 'The Context of Care for the Chronic Mental Patient with Substance Abuse Problems'. *Psychiatric Quarterly* 58: 3–14.

Bartels, S. J., Teague, G. B., Drake, R. E., Clark, R. E., Bush, P. W. and Noordsy, D. L. (1993) 'Service Utilization and Costs Associated with Substance Use Disorder among Severely Mentally Ill Patients'. *Journal of Nervous and Mental Disease* 181: 227–32.

Bergman, H. C. and Harris, M. (1985) 'Substance Abuse among Young Adult Chronic Patients'. *Psychosocial Rehabilitation Journal* 9: 49–54.

Brooke, D., Taylor, C., Gunn, J. and Maden, A. (1996) 'Point Prevalence of Mental Disorder in Unconvicted Male Prisoners in England and Wales'. *British Medical Journal* 313: 1521–4.

Cantwell, R., Brewin, J., Glazebrook, C., Dalkin, T., Fox, R., Medley, I. and Harrison, G. (1999) 'Prevalence of Substance Misuse in First-Episode Psychosis'. *British Journal of Psychiatry* 174: 150–3.

Conigrave, K. M., Hall, W. D. and Saunders, J. B. (1995) 'The AUDIT Questionnaire: Choosing a Cut-off Score'. *Addiction* 90: 1349–56.

Dixon, L., Haas, G., Weiden, P. and Frances, A. (1990) 'Acute Effects of Drug Abuse on Schizophrenic Patients: Clinical Observations and Patients' Self-reports'. *Schizophrenia Bulletin* 16: 69–79.

Drake, R. E., Bartels, S. J., Teague, G. B., Noordsy, D. L. and Clark, R. E. (1993) 'Treatment of Substance Misuse in Severely Mentally Ill Patients'. *Journal of Nervous and Mental Disease* 181: 606–11.

Drake, R. E., McHugo, G. J. and Noordsy, D. L. (1993) 'Treatment of Alcoholism among Schizophrenic Outpatients: 4-year Outcomes'. *American Journal of Psychiatry* 150: 328–9.

Drake, R. E., Mueser, K. T., Clark, R. E. and Wallach, M. A. (1996) 'The Course, Treatment and Outcome of Substance Disorder in Persons with Severe Mental Illness'. *American Journal of Orthnopsychiatry* 66: 42–51.

Drummond, D. C. (1990) 'The Relationship between Alcohol Dependence and Alcohol-Related Problems in a Clinical Population'. *British Journal of Addiction* 85: 357–66.

Foster, K., Meltzer, H., Gill, B. and Hinds, K. (1996) *Adults with a Psychotic Disorder Living in the Community: OPSC Surveys of Psychiatric Morbidity*. London: HMSO.

Gunn, J., Maden, A. and Swinton, M. (1991) 'Treatment Needs of Prisoners with Psychiatric Disorders'. *British Medical Journal* 303: 338–40.

Home Office (1997) 'Statistics of Drug Addicts Notified to the Home Office, United Kingdom'. Statistical Bulletin, issue 22/97.

Johns, A. (1997) 'Substance Misuse: a Primary Risk and a Major Problem of Comorbidity'. *International Review of Psychiatry* 9: 233–41.

Lehman, A. F., Herron, J. D., Schwartz, R. P. and Myers, C. P. (1993) 'Rehabilitation for Adults with Severe Mental Illness and Substance Abuse Disorders: a Clinical Trial'. *Journal of Nervous and Mental Disease* 181: 86–90.

Marshall, J. (1998) 'Dual Diagnosis: Co-morbidity of Severe Mental Illness and Substance Misuse'. *Journal of Forensic Psychiatry* 9: 9–15.

Mason, D., Birmingham, L. and Grubin, D. (1997) 'Substance Misuse in Remand Prisoners: a Consecutive Case Study'. *British Medical Journal* 315: 18–21.

Menezes, P. R., Johnson, S., Thornicroft, G., Marshall, J., Prosser, D., Bebbington, P. and Kuipers, E. (1996) 'Drug and Alcohol Problems among Individuals with Severe Mental Illness in South London'. *British Journal of Psychiatry* 168: 612–19.

Miller, F. T. and Tannenbaum, J. H. (1989) 'Drug Abuse in Schizophrenia'. *Hospital Community Psychiatry* 40: 847–9.

Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R. and Grant, M. (1993) 'Development of the Alcohol Use Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption – II'. *Addiction* 88(6): 791–804.

Stockwell, T., Hodgson, R., Edwards, G., Taylor, C. and Rankin, H. (1979) 'The Development of a Questionnaire to Measure Severity of Alcohol Dependence'. *British Journal of Addiction* 74: 79–87.

Stockwell, T., Murphy, D. and Hodgson, R. (1983) 'The Severity of Alcohol Dependence Questionnaire: Its Use, Reliability and Validity'. *British Journal of Addiction* **78**: 145–55.

Sutherland, G., Edwards, G., Taylor, C., Phillips, G., Gossop, M. and Brady, R. (1986) 'The Measurement of Opiate Dependence'. *British Journal of Addiction* **81**: 458–94.

Tessler, R. C. and Dennis, D. L. (1989) *A Synthesis of NIMH-Funded Research Concerning Persons Who Are Homeless and Mentally Ill.* Washington, DC: NIHM Division of Education and Service System Liaison.

Test, M. A., Wallisch, L. S., Allness, D. J. and Ripp, K. (1989) 'Substance Misuse in Young Adults with Schizophrenic Disorders'. *Schizophrenia Bulletin* 15: 465–76.

Van der Laan, M. and Janssen, M. (1996) 'Addressing Drug Abuse in a Dutch Forensic Hospital'. *Criminal Behaviour and Mental Health* 6: 157–66.

Ward, M. and Applin, C. (1998) *The Unlearned Lesson: The Role of Alcohol and Drug Misuse in Homicides Perpetrated by People with Mental Health Problems.* London: Wynne Howard Books.

Wheatley, M. (1998) 'The Prevalence and Relevance of Substance Use in Detained Schizophrenic Patients'. *Journal of Forensic Psychiatry* 9: 114–29.

Wish, E. (1988) 'Identifying Drug-abusing Criminals'. In Leukefeld, C. and Tims, F. (eds) *Compulsory Treatment of Drug Abuse: Research and Clinical Practice.* NIDA Research Monograph 86.

World Health Organization (1992) *The ICD-10 Classification of Mental and Behavioural Disorders.* Geneva: WHO.

Yesavage, J. A. and Zarcone, V. (1983) 'History of Drug Abuse and Dangerous Behaviour in Inpatient Schizophrenics'. *Journal of Clinical Psychiatry* **44**: 259–61.