

# Substance misuse in a chronic psychosis population

## Prevalence and staff perceptions

Steve Brown

**Aims and method** This paper describes the prevalence of substance misuse in a population with chronic psychosis and compares the results with staff estimates. Keyworkers were interviewed using validated questionnaires.

**Results** The prevalence rate of substance misuse was higher than in the general population but significantly lower than staff estimates. Staff had little specific training or experience in treating substance misuse.

**Clinical implications** Substance misuse is a significant problem among patients with chronic psychosis. Service providers should ensure that staff working with these patients are adequately trained in the management of this problem.

The problems posed by comorbid mental illness and substance misuse are well recognised in the USA, and increasingly acknowledged in the UK (Smith & Hucker, 1994; Hall & Farrell, 1997). The prevalence of substance misuse in a particular cohort depends on many factors, however the British Psychiatric Morbidity Survey (Meltzer *et al.*, 1995) found general population prevalence rates of 4.7% for alcohol misuse and 2.2% for drug misuse, while the Epidemiologic Catchment Area (ECA) study suggested that the odds ratio of someone with a mental disorder also having a drug misuse disorder was 2.3 and an alcohol disorder 4.5 (Regier *et al.*, 1990). Comorbid substance misuse and serious mental illness is associated with increased service use (Menezes *et al.*, 1996) and with poor clinical and social outcome (Lehman *et al.*, 1993), although successful treatment of the substance misuse may produce better outcomes than in patients without a history of substance misuse (Dixon *et al.*, 1991).

The Southampton rehabilitation psychiatry team became aware of an apparent increase in the prevalence of substance misuse among service users. Team members felt that they lacked the training to treat substance misuse, and felt that the comorbid patients used disproportionate amounts of resources and diverted staff from their core work. We therefore decided to measure the prevalence of substance misuse

among users of the rehabilitation services, and to compare this to the staff perceptions of the problem.

### The study

Substance misuse was assessed among all ( $n=185$ ) patients of the Southampton rehabilitation psychiatry service who lived outside hospital. The rehabilitation service treats patients with chronic severe mental illness who need ongoing rehabilitation in order to function out of hospital. Patients are referred from the acute psychiatric services and must have sufficient insight to accept the aims of their rehabilitation programme. Most have spent at least six months as in-patients. The demographic characteristics of the sample are shown in Table 1.

Table 1. Socio-demographic characteristics of 185 patients with chronic psychosis

Characteristics	Prevalence
Gender	
Male	126 (68%)
Female	59 (32%)
Age	
20-29	22 (12%)
30-39	51 (28%)
40-49	54 (29%)
50+	58 (31%)
Marital status	
Single	135 (73%)
Married/cohabiting	31 (17%)
Divorced	18 (9.5%)
Widowed	1 (0.5%)
Diagnosis	
Schizophrenia	163 (88%)
Affective illness	17 (9%)
Other	5 (3%)
Accommodation	
Independent	81 (44%)
Group home	92 (50%)
Rest home/nursing home	9 (4%)
Other	3 (2%)

The six month prevalence of substance misuse was established from keyworker interview using an instrument developed for assessing substance misuse in people with severe mental illness (Barry *et al.*, 1995). The instrument uses questions from the Alcohol Use Disorders Identification Test (Fleming *et al.*, 1991) and the Health Screening Survey (Fleming & Barry, 1991). The instrument developed asked about current consumption, past problems associated with substance misuse, blackouts, loss of control and concern by others about the subject's substance use and showed satisfactory reliability and validity (Barry *et al.*, 1995) when compared to DSM-III-R diagnoses obtained using the substance misuse section of the Diagnostic Interview Schedule-Revised (Robbins *et al.*, 1989).

Substance misuse was diagnosed if the patient showed evidence of social, occupational, psychological or physical problems associated with substance misuse, and dependence if they met ICD-10 (World Health Organization, 1992) criteria of psychological or physical dependence. Lifetime substance misuse was established from case notes, and was diagnosed if mentioned in any clinic letter or discharge summary.

Abuse of prescribed medication was diagnosed if an individual repeatedly ran out of medication due to excess consumption, became intoxicated due to the deliberate excessive use of prescribed medication or was known to trade medication. The use of prescription medication in an act of deliberate self-harm was not included in the definition.

Logistic regression with substance misuse as the outcome variable was used to explore the relationship between substance misuse and service use.

All members of the rehabilitation team ( $n=15$ ) were asked to estimate the prevalence of substance misuse among patients of the rehabilitation service, and were also asked about the training they had received in the management of substance misuse.

## Findings

### *Prevalence rates and staff perceptions of substance misuse*

Forty-one patients (22%) met the study criteria for substance misuse during the previous six months

(Table 2). Drug misuse was less common than alcohol misuse, but nine patients who misused alcohol also misused illicit drugs. The rate of dependence was about half the rate of misuse, with 20 patients (11%) dependent on alcohol, 7 (4%) on illicit drugs and 7 (4%) dependent on prescribed medication. The lifetime prevalence rates (alcohol misuse, 29%; drug misuse, 17%) were about twice the six-month rates.

Thirteen of the patients who were misusing illicit drugs used only marijuana, three also used amphetamines and ecstasy and one opiates. One man used whatever drugs were available and smoked substances such as hedge clippings and coffee when nothing else was to hand. Most of the misuse of prescribed medication was of anti-cholinergic drugs ( $n=22$ ). Misuse of benzodiazepines ( $n=6$ ) was less common. Twelve of the patients who used illicit drugs also misused prescribed medication. Logistic regression analysis showed substance misuse to be significantly associated with younger age and independent living, but not with gender, violence, recent hospital admission or neuroleptic dose (Table 3). The model had a predictive value of 78.7%.

Staff overestimated the prevalence of all forms of substance misuse, though the difference was not significant in the case of alcohol misuse. Fewer than 10% of the estimates fell within the 95% confidence limits of the measured prevalence (Table 2).

### *Staff training and experience in the management of substance misuse*

Four doctors worked on the rehabilitation team. One had completed a six-month registrar appointment in substance misuse, two had undertaken special interest sessions during their training and one had no specific experience. Only one of the 11 non-medical members of the team had any previous experience or specific training in the treatment of substance misuse. Staff with previous experience or training were no more likely ( $P=0.42$ ) to correctly estimate the prevalence of substance misuse.

## Comment

This study confirms that the prevalence rate of substance misuse is increased in chronic mental

Table 2. Prevalence rates of substance misuse in a cohort ( $n=185$ ) with chronic psychosis

Substance	6/12 prevalence misuse	Staff perception of 6/12 prevalence of substance misuse	Chi-squared
Alcohol	33 (18%)	42 (23%)	$P=0.24$
Illicit drugs	18 (10%)	50 (27%)	$P<0.001$
Prescribed drugs	28 (15%)	48 (26%)	$P=0.01$
Any substance	41 (22%)	65 (37%)	$P=0.006$

Table 3. Logistic regression analysis of variables associated with substance misuse in a population with chronic psychosis

Variable	Odds ratio (95% CI)	P
Younger age	0.97 (0.95–0.98)	<0.01
Living independently	1.54 (1.01–1.32)	0.03
Male gender	1.39 (0.88–2.19)	0.15
Violence	0.81 (0.55–1.19)	0.28
Hospital admission in previous year	0.94 (0.00–1.47)	0.79
Neuroleptic dose (mg chlorpromazine equivalent)	1.00 (0.99–1.00)	0.87

illness. The socio-demographic characteristics of the patients with comorbid disease were similar to those found in previous studies. Keyworker interview may miss individuals without conspicuous substance-related morbidity, but is a reliable method of identifying substance misuse in the seriously mentally ill (Drake *et al.*, 1990). The keyworkers in this study had all worked in the team for many years, and knew most of their patients well.

The study probably underestimated the true prevalence of substance misuse in chronic psychosis. None of the subjects was homeless, while the rehabilitation team usually refused referrals of patients with chaotic substance misuse. Drug misuse was less prevalent than among acute patients in south London (Menezes *et al.*, 1996), partly because the subjects were older but also because the prevalence rates of substance misuse are probably lower in South-ampton. Many subjects also had prominent negative symptoms and low incomes, and hence would have found it difficult to obtain regular supplies of illicit drugs.

The prevalence of alcohol misuse was also lower than in the south London study (Menezes *et al.*, 1996), but was similar to the prevalence among people with schizophrenia in south Westminster (Duke *et al.*, 1994).

Staff overestimated the prevalence of all forms of substance misuse. This was more marked in relation to drug than alcohol misuse, and probably reflects staff anxiety about managing drug misuse and hence the clinical time devoted to discussing these patients. None of the medical staff had undertaken higher training in substance misuse and only one of the non-medical staff had any previous experience.

Patients with comorbid serious mental illness and substance misuse present specific management problems (Ridgley *et al.*, 1990), which have led in the USA to the establishment of designated treatment units. Some of these services have reported promising results (Drake *et al.*, 1993; Jerrell & Ridgley, 1995), however studies to date

have been uncontrolled and involved small numbers. An alternative model proposes the involvement of specialised workers in generic units (Gournay *et al.*, 1996).

Drug use has a strong cultural component and American findings may not be applicable in the UK. Further UK studies are therefore needed both to get a better picture of the overall pattern of substance misuse in mental illness, and also to evaluate different models of treatment. Individual services need to develop clear guidelines for the management of patients with comorbid psychotic illness and substance misuse and to decide whether to develop designated services or to integrate specialist workers into current teams. Meanwhile all staff working in mental illness units should receive more specific training in managing this problem.

## References

- BARRY, K., FLEMING, M., GREENLY, J., *et al.* (1995) Assessment of alcohol and other drug disorders in the seriously mentally ill. *Schizophrenia Bulletin*, **21**, 313–321.
- DIXON, L., HAAS, G., WEIDEN, P., *et al.* (1991) Drug abuse in schizophrenic patients: clinical correlates and reasons for use. *American Journal of Psychiatry*, **148**, 224–230.
- DRAKE, R. E., OSHER, F., NOORDSY, D., *et al.* (1990) Diagnosis of alcohol use disorders in schizophrenia. *Schizophrenia Bulletin*, **16**, 57–67.
- , MCHUGO, G. J. & NOORDSEY, D. L. (1993) Treatment of alcoholism among schizophrenic outpatients: 4-year outcomes. *American Journal of Psychiatry*, **150**, 328–329.
- DUKE, P. J., PANTELIS, C. & BARNES, T. R. E. (1994) South Westminster Schizophrenia Survey. Alcohol use and its relationship to symptoms, tardive dyskinesia and illness onset. *British Journal of Psychiatry*, **164**, 630–636.
- FLEMING, M. & BARRY, K. (1991) A three-sample test of an alcohol screening questionnaire. *Alcohol and Alcoholism*, **26**, 81–91.
- & MACDONALD, R. (1991) The alcohol use disorders identification test in a college sample. *International Journal of Addiction*, **26**, 1173–1185.
- GOURNAY, K., SANDFORD, T., JOHNSON, S., *et al.* (1996) Double bind. *Nursing Times*, **92**, 28–29.
- HALL, W. & FARRELL, M. (1997) Comorbidity of mental disorders with substance misuse. *British Journal of Psychiatry*, **171**, 4–5.
- JERRELL, J. M. & RIDGLEY, M. S. (1995) Comparative effectiveness of three approaches to serving people with severe mental illness and substance abuse disorders. *Journal of Nervous and Mental Disease*, **183**, 566–576.
- LEHMAN, A. F., MYERS, C. P., THOMPSON, J. W., *et al.* (1993) Implications of mental and substance use disorders: A comparison of single and dual diagnosis patients. *Journal of Nervous and Mental Disease*, **181**, 365–370.
- MELTZER, H., GILL, B., PETTICREW, M., *et al.* (1995) *The Prevalence of Psychiatric Morbidity Among Adults Living in Private Households. OPCS Surveys of Psychiatric Morbidity in Great Britain, Report 1*. London: HMSO.
- MENEZES, P., JOHNSON, S., THORNICROFT, G., *et al.* (1996) Drug and alcohol problems among individuals with severe mental illness in south London. *British Journal of Psychiatry*, **168**, 612–619.

- REGIER, D., FARMER, M., RAE, D., *et al* (1990) Comorbidity of mental disorders with alcohol and other drug abuse. Results from the epidemiologic catchment area study. *Journal of the American Medical Association*, **264**, 2511–2518.
- RIDDGELY, S., GOLDMAN, H. & WILLENBRING, M. (1990) Barriers to the care of persons with dual diagnosis: organisational and financing issues. *Schizophrenia Bulletin*, **16**, 123–131.
- ROBBINS, L., HELTZER, J., COTTLER, L., *et al* (1989) *NIMH Diagnostic Interview Schedule: Version 11*, Revised. St Louis, MO: Washington University.
- SMITH, J. & HUCKER, S. (1994) Schizophrenia and substance abuse. *British Journal of Psychiatry*, **165**, 13–21.
- WORLD HEALTH ORGANIZATION (1992) *The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10)*. Geneva: WHO.
- Steve Brown, *Honorary Lecturer, Department of Psychiatry, University of Southampton, Royal South Hants Hospital, Southampton*
- Correspondence: Dr S. Brown, Wolston Park Hospital, Wacol 4076, Queensland, Australia

---

# Review of College guidelines on high-dose neuroleptic use in a psychiatric intensive care unit

*Hugh Jones, Rachel Jones, and James V. Lucey*

---

**Aims and method** Guidelines on high-dose antipsychotic medication contained in the Royal College of Psychiatrists consensus statement were examined in a prospective study of 73 patients admitted to a psychiatric intensive care unit (ICU).

**Results** The mean (s.d.) neuroleptic dose received was 884 mg (667) chlorpromazine equivalence per day. Thirteen patients received more than 1200 mg chlorpromazine equivalence per day during at least one week, although adopting measures advocated in the guidelines allowed a reduction in neuroleptic dose for 10 of these patients. Illness severity and a patient's past history were associated with neuroleptic use.

**Clinical implications** Adherence to the College guidelines is thus possible on a psychiatric ICU.

The Royal College of Psychiatrists consensus statement on the use of high-dose antipsychotic medication (Thompson, 1994) considered situations where high-dose neuroleptic use was more likely, described the risks of their use, and offered suggestions as to alternative treatment strategies. Violent and aggressive behaviour is common in psychiatric ICUs (Walker & Seifert, 1994), and such behaviour has been associated with the use of higher neuroleptic doses (Peralta *et al.* 1994). Thus applying College guidelines on

such a unit may not be straightforward. One recent retrospective study recorded average doses of 2100 mg chlorpromazine equivalence per day on a psychiatric ICU (Hillam & Evans, 1996). This study prospectively recorded neuroleptic use in 73 patients admitted to a psychiatric ICU.

## The study

The patient sample constituted of 73 consecutive admissions to a 15-bed psychiatric ICU, opened one month prior to the beginning of the study at Homerton Hospital, London, recruited between September 1995 and January 1996. There were 54 male and 19 female patients with a mean age of 32.8 years. The mean length of stay was 20 days.

Thirty-six patients had an ICD-10 (World Health Organization, 1992) diagnosis of schizophrenia/schizoaffective disorder, eight of an acute schizophrenia-like illness, 21 of bipolar disorder, four of a drug-induced illness, two of a personality disorder and two an organic illness.

For 16 patients this was their first admission and for 15 their second. Twenty-two patients had