



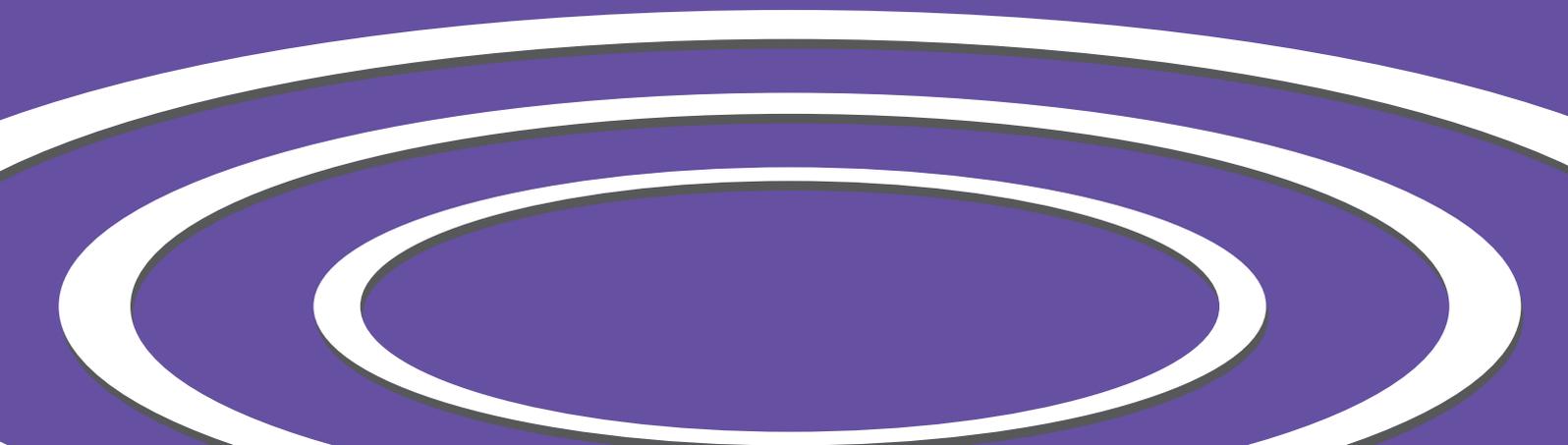
Executive Summary

A study of the Prevalence and Management of Co-Morbidity amongst Adult Substance Misuse & Mental Health Treatment Populations

Research report submitted to the Department of Health

September 2002

Report prepared by:
Tim Weaver, Vikki Charles, Peter Madden and Adrian Renton



Co-morbidity of Substance Misuse and Mental Illness Collaborative Study (COSMIC)

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Disclaimer

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Each of the above named persons made vital contributions to the design, implementation or analysis of the study. We would also like to add a note of thanks to a number of other people who contributed greatly to the project: Anna Kolliakou, Maureen Sancaster, Emily Glorney, Sarah Miller, Luke Tierney, and Kevin Siddall all completed large numbers of fieldwork interviews in the London centres. We are also grateful to Kevin Siddall for helping with our literature review and to Ali Hobbs who worked on the data entry.

Last but not least, we are indebted to the many clinicians, administrative staff and patients within the substance misuse and mental health services we studied. We made heavy demands upon clinical staff in particular, but they were almost always generous, helpful and committed to the research. Without this level of co-operation the study would not have been possible. We very much hope that the findings of the study repay the investment they made in the project.

ES1. Study Aims

The main aim of the study has been to estimate the prevalence of co-morbid substance misuse and mental health problems (co-morbidity) amongst current patients of substance misuse and mental health services. The study also set out to describe the range of co-morbid presentations among these populations, to assess the treatment needs (met and unmet) of co-morbid patients and to assess whether there are differences between populations drawn from London and provincial urban areas, in terms of the prevalence and pattern of co-morbidity.

ES2. Method

The research was undertaken in four inner-city study centres. There were two London centres (Brent and Hammersmith & Fulham) and two provincial (non-London) centres (Nottingham & Sheffield). In order to address the above aims we implemented a two-phase, cross-sectional prevalence survey and needs assessment. This comprised:

- *a caseload census collected demographic, diagnostic data from keyworkers about all patients currently in treatment meeting study criteria. (Phase I)*
- *a patient interview survey and case-note audit in a random sub-sample of cases (Phase II). We obtained the primary outcome measures (reference assessments of the presence of psychiatric disorders and substance use problems) through the self-reported patient data and the case-note audit.*

This quantitative investigation was complemented by a qualitative study into the factors that contribute to substance misuse amongst mental health patients with severe mental illness.

Findings

ES3. Drug service treatment operations

Subjects: From a random sample of 266 cases we achieved complete matched case-based data (patient interview, keyworker survey and case-note audit) in 216 cases (81.2% response rate). 67.1% of the sample was male, 32.9% female. The median ages for men were 35 and 32 for women. White UK patients made up a large majority of the sample (92.1%). There were significant differences in the demographic profile of the sample between London and non-London centres in terms of the gender and age distributions. Apart from a slight under-representation of Black patients, the demographic profile of the sample closely matched

the treatment population from which the sample was drawn.

Profile of Substance Misuse Problems: 88.9% reported use of heroin or opiate substitutes in the past year most of whom (80.6%) also reported other poly-drug use. 5.1% reported non-opiate drug use in the past year, while 6.0% reported abstinence in the past year. There were significant differences in the reported drug use of London and non-London patients. Overall, 33.3% reported hazardous or harmful alcohol use. The prevalence was significantly higher in London compared to non-London centres (41.2% vs 28.2%, $p=0.007$).

Prevalence of Mental Health Problems: We completed reference assessments for the presence of psychotic disorders, personality disorders and affective and anxiety disorders in all cases. The ratings for psychosis and personality disorder were subject to a specificity analysis. Prevalence was estimated as follows:

- *Psychotic disorder: 7.9% (95% CI: 4.7 to 12.3)*
- *Personality disorder: 37% (95% CI: 30.6 to 43.9)*
- *Severe Depression: 26.9% (95% CI: 21.1 to 33.3)*
- *Mild Depression: 40.3% (95% CI: 33.7 to 47.1)*
- *Severe Anxiety: 19%. (95% CI: 14.0 to 24.9)*
- *Mixed Depression & Anxiety disorder: 18.5% (95% CI: 13.6 to 24.4)*
- *Depression &/or anxiety disorder: 67.6% (95% CI: 60.9 to 73.8)*

74.5% of patients were assessed to have one of more of the above disorders. A third of the sample (36.1%) had depression &/or anxiety without any other disorder, but 31.9% were assessed to have 2 or more disorders. 3 out of 4 of patients with psychosis (76.5%) also had a personality disorder and rated positive for depression and/or severe anxiety.

There were no significant observed differences in the prevalence of psychiatric disorder between London and non-London centres. In an extended statistical analysis, we included centre, demographic and casemix variables in a multiple regression model. This was suggestive of an increase in the adjusted odds ratio of psychiatric disorder in London compared to non-London centres, but the difference was not statistically significant. However, the adjusted analysis shows that the AOR for the presence of any psychiatric disorder in females is approaching three times the baseline rate of males.

Keyworker Assessments of Psychiatric Disorder:

We compared our reference measures of psychiatric disorder in sampled patients with the recorded diagnosis reported by each patient's keyworkers.

When compared to the reference measures, keyworker assessments achieved consistently good specificity (90%+) but poor sensitivity (<35%) in relation to psychosis, personality disorder and affective/anxiety disorder. Hence, the reporting of diagnosis recorded by drug services has limited utility as a valid method of identifying a co-morbid population.

Need and Provision of Drug Misuse Interventions:

When compared to non co-morbid patients, co-morbid patients (especially those with personality disorder) have significantly poorer social function and a greater need for community care interventions. Co-morbid patients are perceived to be more chaotic and more aggressive by their keyworkers. Patients with personality disorders were rated as having relatively poor engagement with services. There were few differences in the provision of substance misuse interventions between co-morbid and non co-morbid patients. Co-morbid patients were more likely to receive counselling based interventions but despite this higher level of provision there was also a higher level of unmet need when compared to non co-morbid patients.

Provision of Mental Health Interventions: Of the patients with a psychiatric disorder, 38.5% had no contact with any health services specifically for their mental health problem. 17.4% had contact with mental health services with the remaining patients managed by their GPs or substance misuse psychiatrists. Patients in contact with mental health services mostly received specialist assessment/monitoring and medication. Patients with psychosis were most likely to have contact with mental health services. The majority of patients with affective disorders had no contact with services specifically for their mental health problem. Overall, 18.1% of drug service patients exhibited psychiatric symptomatology and care needs associated with high potential for referral for CPA management. CPA management was implemented in less than half of such cases (43.8%).

ES4. Alcohol service treatment populations

Subjects: From a random sample of 87 cases we achieved complete matched case-based data (patient interview, keyworker survey and case-note audit) in 62 cases (71.3% response rate). 62.9% of the sample was male, 37.1% female. The median ages for men were 42 and 39 for women. White UK patients made up a large majority of the sample (95.2%). The demographic profile of the sample closely matched the treatment population from which it was drawn.

Profile of Substance Misuse Problems: 91.9% of the sample reported harmful or hazardous alcohol use in the past year. 29.0% also reported drug use in the past year, 11.3% exhibited dependent drug use.

Prevalence of Mental Health Problems: We completed reference assessments for the presence of psychotic disorders, personality disorders and affective and anxiety disorders in all cases. The ratings for psychosis and personality disorder were subject to a specificity analysis. Prevalence was estimated as follows:

- *Psychotic disorder: 19.4% (95% CI: 10.4 to 31.4)*
- *Personality disorder: 53.2% (95% CI: 40.1 to 66.0)*
- *Severe Depression: 46.8%. (95% CI: 34 to 59.9)*
- *Minor Depression: 33.9%. (95% CI: 22.3 to 47.0)*
- *Severe Anxiety disorder: 32.3%. (95% CI: 20.9 to 45.3)*
- *Affective &/or Anxiety disorder: 80.6% (95% CI: 68.6 to 89.6)*

Overall, 85.5% of patients were assessed to have one or more of the above disorders. A majority of patients (54.8%) had 2 or more of the above psychiatric disorders.

Need and Provision of Alcohol Misuse Interventions:

When compared to non co-morbid patients, co-morbid patients with psychotic and/or personality disorder have significantly poorer social function. All co-morbid groups have greater need for community care interventions than non co-morbid. There was some evidence co-morbid patients were perceived to be more challenging to manage by their keyworkers and received higher levels of counselling based interventions and those related to relapse prevention.

There were few differences in the provision of substance misuse interventions between co-morbid and non co-morbid patients. Co-morbid patients were more likely to receive counselling based interventions but despite this higher level of provision there was also a higher level of unmet need when compared to non co-morbid patients.

Provision of Mental Health Interventions: Overall, 32.3% of alcohol service patients exhibited psychiatric symptomatology and care needs associated with high potential for referral for CPA management. CPA management was implemented in nearly two-thirds of such cases (65%). Half of the patients with a psychiatric disorder reported consulting a psychiatrist and a third (37.7%) reported contact with mental health services.

ES5. Adult mental health service treatment populations

Subjects: Interviews were completed with 282 patients (achieved sample) from a random sample of 400 (70.5% response rate). These self-report data were matched with keyworker case assessments and a case-note audit. Hair and urine samples were obtained in 54 cases and tested for the presence of a range of drugs of misuse. Males represented a small majority of the study population (56.7%). The median ages for men were 36 and 43 for women. Differences in the ethnicity of the London and non-London study populations were significant. White UK patients made up 39.5% of the London centres study population and 83.3% in the non-London centres. The demographic profile of the achieved sample did not differ significantly from the total treatment population from which the sample was drawn.

Profile of Mental Health Problems: 76.6% of the study population were reported to have a psychotic disorder, 39.4% had one or more personality disorder, 24.1% had a severe depression, 40.1% had mild depression and 18.4% had a severe anxiety disorder. Psychiatric co-morbidity was highly prevalent and 64.5% of patients had some co-occurrence of psychosis, affective and/or anxiety disorder and/or personality disorder.

Prevalence of Substance Use, Misuse & Dependence: 30.9% of the patients reported problem drug use in the past year. (95% CI: 25.5 to 36.6). Hair and urine analysis suggested that these self-reported drug use data provided a reliable and valid basis for prevalence estimation. Cannabis was the most frequently reported drug (25.2%). Half of those reporting drug use used cannabis only (14.5%). 12.8% reported poly-drug use, including 5% who used opiates. 16.7% of patients were assessed as dependent on one or more illicit or non-prescribed drug. (95% CI: 12.5 to 21.5). A quarter of patients (25.2%) reported hazardous or harmful alcohol use. (95% CI: 20.5 to 31.0). Overall, 44% of patients self-reported problem use of drugs and/or were assessed to use alcohol at hazardous or harmful levels year (95% CI: 38.1 to 49.9).

The observed prevalence of problem drug use and drug dependence was significantly higher in London centres when compared to non-London centres (Use: 43.9% vs 22%, $p < 0.001$, Dependence: 24.6% vs 11.3%, $p = 0.005$). Cannabis, Sedatives and Crack cocaine were all reported by a significantly higher proportion of patients in London centres. There was no significant difference in the prevalence of hazardous and harmful alcohol use.

We included demographic and casemix variables in a multiple regression model to compare problem drug use and alcohol misuse in London and non-London centres. This analysis showed a large and significant difference in the adjusted odds ratio for problem drug use in London (AOR = 2.52; 95% CI: 1.31 to 4.85). There was no marked or significant difference in the adjusted odds ratio for alcohol misuse in London over non-London centres. (AOR = 1.05; 95% CI: 0.52 to 2.11).

Keyworker Assessments of Substance Misuse: We compared our reference measures of drug use and alcohol misuse in sampled patients with assessments provided by each patient's mental health keyworkers. When compared to the reference measures, keyworker assessments achieved good specificity but poor sensitivity. Hence, the reporting of problem drug use and alcohol misuse by keyworkers has limited utility as a method of reliably identifying a co-morbid population.

Need and Provision of Mental Health Interventions: When compared to non co-morbid patients, co-morbid patients have significantly poorer social function, more severe symptomatology and a greater need for community care interventions. Co-morbid patients are perceived to be more chaotic, more aggressive and less compliant with their care plans than the non-co-morbid population by their keyworkers.

Need for Substance Misuse Interventions: Less than 5% of mental health patients exhibited patterns of drug use likely to satisfy eligibility criteria for drug treatment programmes. The potential for referral to alcohol services appears greater given that 9.2% reported severe alcohol misuse. Fewer than 1 in 6 patients who use drugs and 1 in 5 who reported alcohol misuse received any substance-related interventions. Most received counselling based interventions (re: motivation, harm minimisation education) through mental health services. 3.4% of drug users and 2.8% who misused alcohol had past year contact with specialist drug and alcohol services respectively. Patients reporting opiate use were more likely to receive interventions than patients with other drug use profiles were. Intervention was also associated with patients expressing a need for intervention and keyworkers identifying the presence of drug use.

ES6. Qualitative Investigation of drug use in patients with severe mental illness

A purposive sample of 14 patients who reported drug use was selected from respondents to the phase II survey in London mental health services. (12 males, 2

females. 6 White, 4 Black British or Caribbean, 3 Black African, 1 Indian. Their ages ranged between 27 and 55.)

Overview of Substance Use Over The Life Course: The reported age of first drug use ranged between 10 and 18 years. Most subjects reported that cannabis was the first illicit drug they tried. The majority continued to use cannabis after initiation. Those reporting further experimentation most commonly used cocaine or crack. Most reported poly-drug use.

The reported pattern of drug use and the motivation to use and not to use, changed over their life course reflecting temporal shifts in lifestyles and attitude, life experiences and personal assessments about how particular substances had an impact upon them socially, physically and mentally. Some drug use was occasional and most reported periods of abstinence. Periods of heavy and chaotic use were also reported. A majority of subjects reported use of alcohol inter-related with drug use and a significant minority reported drinking to harmful or hazardous levels. All of the subjects began using drugs before they started to experience mental health problems or psychiatric symptomatology.

Factors Associated with Initiation, Changes in Drug Use and Cessation: Subjects identified a range of factors that contributed to their initiation into drug use and also their continuation, change and cessation of drug use throughout the life course:

Initiation:

- *Traumatic life events: These had particular impact when subjects were young. Drugs appeared to be used to block out the mental and emotional pain.*
- *The trauma and the enduring consequences of it were often seen by subjects to be the genesis of their mental health problems. Subjects acknowledged that drug use - once part of their solution to the trauma - could become a factor exacerbating their mental health problems.*
- *Friends, peer groups & cultural Identity were influences that featured prominently in many accounts of initiation. Use of substances provided social status.*
- *Curiosity and experimentation: In some cases the desire to experiment was independent of social aspirations.*
- *Exposure to normalised drug use: Through local environments, friends and peer groups or family.*

Changes in Drug Use:

- *Positive and negative experiences, perception of potential for harm: An important influence on changing patterns of use was the extent to which*

subjects viewed their experience of drug use to be beneficial or harmful. This assessment could be drug specific and may vary with time.

- *Financing drug use: Most reported lack of financial resources as a factor restricted drug use. Drug use was financed in a variety of ways: paid employment, sustaining frugal lifestyles and careful budgeting of benefits to maintain a minimal supply of their drug of choice. A significant minority finance drug use in part or whole through criminal activity. This may be associated with spiralling consumption.*
- *Changes in social networks were cited as factors that could have an impact on drug use. Subjects described change in associates, friendship group or significant relationship. They may also move physically from a particular living environment where there was exposure to normalised drug culture.*
- *Illegality of drugs was mentioned as a reason for not using.*

Drug Use & the Onset of Mental Health Problems:

All subjects were using drugs when they started to experience mental health problems. However, type, quantity and frequency of use at onset differed. Subjects gave different accounts of the relationship between drug use and the onset of mental health problems. Some subjects saw drug use as a causal factor others saw no connection. Most described a multifaceted relationship and some felt their drug and mental health problems stemmed from negative childhood experiences or trauma. Drug use was reported to alleviate mental health problems at times, but it was also reported that it could exacerbate them. Drug use impacted on mental state in different ways ranging from relaxation through to inducement of manic, paranoid or anxious states or the exacerbation of violent tendencies. A significant proportion of subjects knew how their mental state could be affected by drug use and had become discerning users of substances to both manage mood and some physical pain and discomfort experienced as side effects of medication.

Factors Influencing Drug Use Post Onset: Drug use often changed post-onset but this might include selective or periodic abstinence as well as more extensive or frequent use. Subjects did not seek out substances because they thought it would alleviate their mental health problems or any side effects of anti-psychotic medication. Any perception of positive impact in these spheres was reported as being discovered or arising 'fortuitously'. Factors affecting use post onset included:

- *Discerning drug use for relaxation or mood moderation: Reports described pleasurable use of drugs. Other specific uses included cannabis to relax,*

heightened sensory pleasure, awareness or imagination, cannabis & heroin to diminish violent mood, stimulants to provide energy and ecstasy for participation in 'raves'. Some subjects also reported drug use designed to achieve pleasurable delusional states.

- *Social Influences described in relation to initiation could also be powerful motivating factor in the continued use of drugs.*
- *Escape from boredom and mundane lives was a factor, but not commonly cited.*
- *Countering medication side-effects was a primary factor in use of specific drugs.*

Experience of Care and Treatment: Subjects gave varying reports about the mental health care and treatment they received. The majority expressed some dissatisfaction. The principal concerns focused on the general ethos and approach of the service towards drug use, communication, cultural and racial awareness, continuity of care, medication and hospitalisation. A significant minority of the subjects had experience of statutory and non-statutory drug services. Drug services were perceived more favourably than mental health services by virtue of their more empathic approach towards drug use.

ES7. Discussion and implications for service development

Certain study limitations should be acknowledged:

- *Reported prevalence rates should not be seen as generalisable to groups within the general population defined in terms of the same diagnostic or substance use categories we employed within current treatment populations.*
- *Due to small sample sizes our 95% confidence intervals around some prevalence estimates are wide.*
- *Differences in prevalence between London and non-London centres were observed. We need to exercise caution in our interpretation of these findings. Further investigation is required before any definitive picture emerges about regional variation in prevalence and prevalence in non-urban areas.*
- *The study adopted a cross-sectional design. This ensured patients with brief contact were not excluded from the study population. It may serve to under-estimate the extent to which co-morbid patients received treatment from more than one service on a 'serial' basis. Amongst substance misuse patients some psychiatric syndromes may be consequent upon withdrawal, intoxication or chronic substance use. The proportion of co-morbid patients with such aetiology can only be properly assessed using a longitudinal study design.*

Despite these limitations, our findings suggest that a majority of patients in contact with statutory drug and alcohol services experience mental health problems. While a relatively high prevalence of psychosis was observed, most co-morbid patients have affective and/or anxiety disorders. There was extensive co-occurrence of other psychiatric disorders and secondary substance misuse problems. Close to half of the drug treatment population (and possibly an even higher proportion of those in treatment for alcohol problems) experience 'multiple morbidity'.

To effectively meet the needs of co-morbid patients with psychosis, collaborative working between substance misuse and mental health specialists will be required. However, there are a large number of patients of the substance misuse services who do not meet the criteria for access to community mental health services. Opportunities to develop or enhance collaborative working with local psychotherapy services and GPs should be explored to enhance the management of this population. However, we also believe that resources need to be deployed which enable substance misuse services to implement evidence-based treatments to a much higher proportion of these patients.

Within the mental health population, the prevalence rate for all co-morbidity (problem drug and/or alcohol misuse) is higher than previously reported in comparable UK populations - a difference largely accounted for by the high level of problem drug use we observed. Co-morbid patients appear to be the core client group of mental health services in certain inner city areas where the prevalence is dramatically high. The sheer scale of the need presented by patients with psychosis and substance misuse co-morbidity is daunting. This need cannot be addressed by the creation of 'dual-diagnosis' specialists. We believe there is a need for all mainstream mental health staff to be trained to manage co-morbidity at some basic level. Collectively, the mental health service should also achieve capability in the management of the large group of patients who are unlikely to be appropriate cases for joint management with substance misuse services. There will need to be investment in research to help develop new service models and methods of intervention which are capable of achieving behaviour change in psychotic patients who misuse substances. Moves towards integrated team approaches favoured in the US would be premature given the absence of evidence-based models, and possibly unrealistic given the current absence of close working between mental health and substance misuse services. However, mental health and substance misuse services should begin work to develop joint policies around assessment, intervention and management. ■