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Co-morbidity

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Co-morbidity

Introduction

The co-occurrence of psychiatric illness and substance disorders, commonly termed co-morbidity or dual diagnosis, is not a new phenomenon. However, in recent years the issue has gained momentum in the political and professional discussion as it has become apparent that a large and probably growing number of people are affected. In this chapter the focus will be on the coexistence of psychiatric and personality disorders and the use of illicit drugs. In fact, it is often appropriate to speak about multimorbidity, as affected individuals often also suffer from somatic illnesses, e.g. human immunodeficiency virus (HIV) or hepatitis C virus infection, as well as social disorders, such as family problems, unemployment, incarceration or homelessness. Care and treatment services are usually inadequately equipped to deal with the diagnostic and treatment needs of this client group, disregarding and/or being incapable of coping with the totality of the client's problems. The result is frequently a 'revolving door' situation, with individuals in great need of treatment being referred from one service to another while all the time their situation deteriorates.

Note that the specific relationship between cannabis use and psychiatric disorders is considered in more depth in the selected issue on cannabis (p. 82).

Definition

Co-morbidity, or dual diagnosis, is defined by the World Health Organization (WHO) as the 'co-occurrence in the same individual of a psychoactive substance use disorder and another psychiatric disorder' (WHO, 1995). According to the United Nations Office on Drugs and Crime (UNODC), a person with dual diagnosis is a 'person diagnosed as having an alcohol or drug abuse problem in addition to some other diagnosis, usually psychiatric, e.g. mood disorder, schizophrenia' (UNODCCP, 2000). In other words, co-morbidity in this context refers to the temporal coexistence of two or more psychiatric or personality disorders, one of which is problematic substance use.

Aetiology

Determining the aetiology of co-morbidity results in a chicken and egg discussion: what came first? Existing research about the causal relations between psychiatric and substance disorders is inconclusive. The symptoms of mental disorder and addiction problems interact and mutually influence each other.

Research evidence indicates that psychiatric and personality disorders usually occur before substance use disorders, i.e. they increase individuals' susceptibility to such problems (e.g. Kessler et al., 2001; Bakken et al., 2003); however, psychiatric disorders may also be aggravated by drug use (e.g. for depression: McIntosh and Ritson, 2001) or occur in parallel.

Drug use can also be perceived as a component or symptom of a psychiatric or personality disorder and as an attempt to self-medicate (e.g. Williams et al., 1990; Murray et al., 2003). The fact that substance use alleviates distressing symptoms encourages the development of addiction. Once the drug use is discontinued, e.g. through withdrawal or substitution treatment, the symptoms may reappear. Acute drug-induced psychoses occur particularly in users of cocaine, amphetamines and hallucinogens and usually subside relatively quickly. It may, however, be very difficult to differentiate between symptoms due to substance intoxication and unrelated psychotic episodes.

Krausz (1996) suggests four categories of dual diagnosis:

- a primary diagnosis of a mental illness, with a subsequent (dual) diagnosis of substance misuse that adversely affects mental health;
- a primary diagnosis of drug dependence with psychiatric complications leading to mental illness;
- concurrent diagnoses of substance misuse and psychiatric disorders;
- a dual diagnosis of substance misuse and mood disorder, both resulting from an underlying traumatic experience, for example post-traumatic stress disorder.

Similarly, the Swedish national report differentiates between psychiatric patients suffering from co-morbidity and drug-dependent clients with personality disorders that are aggravated by drug use and which are not always adequately diagnosed.

Morel (1999) distinguishes non-specific psychiatric disorders found among drug addicts from complications specifically connected with drug use. Disorders often found among drug users include:

- anxiety–depressive disorders;
- sleep disorders, resulting from depression, anxiety disorder or psychosis;
- aggressive and violent behaviour, indicating antisocial, psychopathic, schizophrenic or paranoid personality disorders.

Problems specifically linked to drug use include:

- pharmaco-psychoses induced by hallucinogenic drugs or amphetamines;
- confusion syndromes.

Recent neuropsychological and neurobiological studies and the advent of techniques that enable brain processes to be visualised have made it possible to hypothesise about the interactions between mental and physical trauma, brain development, drug effects, stress and mental development. The reward system is essential in the development of addiction, and addiction is linked to structural changes and adaptation of the brain at micro and macro levels (Nestler, 2001).

Other theories link specific drugs to specific mental disorders, e.g. it has been postulated that heroin could reduce stress, alleviate pain and abolish menacing voices in schizophrenic and borderline schizophrenic patients; however, patients with severe mental illnesses do not use heroin. Cocaine, it is suggested, could lighten depressive states, allow behavioural disinhibition and permit narcissistic personalities to act out grandiosity. Cannabis could relieve tension and ecstasy ease social inhibitions (Verheul, 2001; Berthel, 2003).

The 2002 Irish national report specifically examined depression among drug users, based on the results of several studies, and concluded that there is a strong association between problem drug use, in particular use of opiates and benzodiazepines, and high rates of depression. German research into the relationship between substance disorders, depression and suicide concluded that the risk of suicide is greatly increased in those with a depressive

disorder (Bronisch and Wittchen, 1998). It is possible that some individuals with depression may self-medicate with opiates and benzodiazepines: clients in treatment programmes have lower depression scores than clients in low-threshold services (Rooney et al., 1999) or at initiation of treatment (McIntosh and Ritson, 2001).

A survey in Norway (sample size = 2 359) found that a high proportion of drug users have experienced severe family problems during childhood and youth. Some 70 % had experienced learning and behavioural problems in school, 38 % had been the victim of bullying and 21 % had received psychiatric treatment during childhood and adolescence (Lauritzen et al., 1997). Female drug users with psychiatric co-morbidity have often been the victims of traumatic sexual abuse (e.g. Beutel, 1999).

Diagnosis

Routine assessment for psychiatric and personality disorders does not always form part of the standard diagnostic procedures performed at the commencement of treatment in drug services. Except in some particularly aware and/or specialised services, mental symptoms and disorders are rarely explored in drug treatment services.

In any case, co-morbidity is notoriously difficult to diagnose. Drug addiction and the disruptive behaviour it causes often dominates the clinical picture and disguises psychiatric symptoms. In addition, substance abuse can cause psychiatric symptoms that are barely distinguishable from those of psychiatric disorders (Berthel, 2003), while substance withdrawal or acute intoxication can also mimic almost any such disorder (Liappas, 2001). Furthermore, depression and anxiety can be viewed as inherent symptoms of the intoxication–withdrawal cycle; symptoms that used to be alleviated by drugs become manifest in the course of abstinence or substitution treatment.

Methodological advances have also improved the diagnosis of both psychiatric and substance use disorders. A wide range of standardised and validated instruments are now available to measure psychiatric symptoms and personality disorder, as are various instruments that assess the level of drug use patterns and addiction. The addiction severity index (ASI) is a multifunctional instrument that can be used in diagnosis, treatment planning and follow-up, and research. The ASI has the advantage of being multidimensional, measuring past and current problems in seven areas: health status, employment and self-support, alcohol use, drug use, legal status, family and social relationships and psychiatric symptoms (Krausz, 1999a; Öjehagen and Schaar, 2003). It is standardised and has been translated from English into

most other European languages (EuroASI) ⁽¹⁷²⁾. The Trimbos Institute has developed and tested protocols for the diagnosis and treatment of addicted clients with attention deficit/hyperactivity disorder (ADHD) (Eland and Van de Grint, 2001).

Prevalence

Numerous studies have been carried out to measure the prevalence of psychiatric and personality disorders as well as drug use patterns in the general population as well as among psychiatric patients and drug users in and outside treatment services. The results, in terms of both numbers and diagnoses, vary greatly, depending on population availability and selection, sampling methods, diagnostic skills and competence, the validity and reliability of the diagnostic instruments used and the period of the study.

In a review of different studies, Uchtenhagen and Zeiglgänsberger (2000) concluded that the most common psychiatric diagnosis among drug users is personality disorder, affecting 50–90 %, followed by affective disorder (20–60 %) and psychotic disorders (20 %). Between 10 and 50 % of patients exhibit more than one psychiatric or personality co-morbidity disorder.

In a review of international studies on psychopathology in drug-dependent subjects, Fridell (1991, 1996) outlined a clinical picture of co-morbidity in drug addiction that has been confirmed by his own studies in Lund, Sweden. Three main groups of disorders could be identified: personality disorders (65–85 %), depression and anxiety states (30–50 %), and psychoses (15 %). Verheul (2001), in his overview of six studies of treated addicts, found that antisocial (23 %), borderline (18 %) and paranoid (10 %) personality disorders were particularly prevalent.

Many drug professionals believe that the prevalence of drug dependence in combination with mental disorders is increasing, although some argue that this is due to a greater awareness of this issue and/or changes in the diagnosis and the classification of psychiatric diseases and/or restructuring of healthcare systems. In Finland, according to the hospital discharge register, the number of treatment periods associated with simultaneous drug-related and other mental health problems increased from 441 in 1987 to 2 130 in 2001. Treatment periods for opiate use combined with psychiatric disorders have tripled since 1996. This is consistent with the increase in drug use, although no direct causality is suggested. In Ireland, the rate of first admissions of drug users to inpatient psychiatric services increased almost fourfold between 1990 and 2001.

The Spanish national report notes that the observed increase in co-morbidity might partly be due to an increase in dependence on psychostimulants.

Prevalence of co-morbidity in treatment settings

Table 7 gives details of some studies of co-morbidity in different drug treatment and psychiatric settings in Member States as presented in the national reports. Data on substance disorders in psychiatric settings are not as readily available as data on psychiatric disorders in drug treatment settings. Although the studies presented in this review are not comparable, they do give an indication of the situation in EU countries. There is considerable divergence in the populations studied, the diagnostic criteria selected, the instruments used and the time of diagnosis. For reasons discussed above, under-diagnosis is likely in many cases.

A comparative study in Greece and France found that, although the overall rates of psychopathology in opiate users under treatment were quite similar in the two countries, the psychopathological patterns varied: the prevalence of affective disorders was higher in French than in Greek drug users (19 % vs. 7 %), whereas antisocial personality patterns were more prevalent in the Greek sample (20 % vs. 7 %). The authors attributed these differences to the lower prevalence of drug use in Greece: 'the more limited the extent of socially unacceptable behaviour, the more likely it is that socially deviant individuals are involved in it' (Kokkevi and Facy, 1995).

A Norwegian study examined gender differences between poly-substance abusers (of whom 85 % were heroin users) and pure alcoholics. The sample included a very high proportion of subjects with psychiatric and personality disorders (93 %). Overall, women had significantly higher levels of major depression, simple phobia and borderline personality disorder than men. The co-occurrence of an antisocial personality disorder was highest in male poly-substance abusers (Landheim et al., 2003).

Prevalence — prisons and compulsory treatment

The prison population deserves particular attention. The prevalence of psychiatric disturbances, like the prevalence of drug use, is much higher in the prison population than among the population overall. Irish data suggest that 48 % of male and 75 % of female prisoners are mentally disturbed, while 72 % of men and 83 % of women in prison report lifetime experience of drug use (Hannon et al., 2000). In 1999, 23 % of problem drug users held at the Vienna Police Detention Centre had psychiatric problems (Dialog, 2000). The relapse rate among drug users who

⁽¹⁷²⁾ See EMCDDA Evaluation Instrument Bank (<http://eib.emcdda.eu.int>).

Table 7: Prevalence of co-morbidity in treatment settings in various countries of the EU

Country	Setting	Population	Sample size	Prevalence of co-morbidity (%)	Diagnoses	Source
Belgium	Psychiatric hospitals and psychiatric services in general hospitals	Admissions for drug problems (1996–99)	18 920	86	Schizoid, paranoid, schizotypal: 86 % Depression: 50 % Personality disorders: 43 %	Minimum psychiatric database (1)
Czech Republic	Therapeutic communities	Residential clients (2001–02)	200	35	Personality disorders: 14 % Depression: 7 % Neurotic disorders: 6 % Eating disorders: 5 %	Czech national report (1)
Germany	Treatment centres	Opiate addicts	272	55	Stress and somatoform disorders: 43 % Affective disorders: 32 % Phobias: 32 % Depressive episodes: 16 %	Krausz (1999b) (1)
Greece	Prison and treatment services	Opioid-dependent men	176	86	Anxiety: 32 % Affective disorders: 25 % Schizophrenia: 6 %	Kokkevi and Stefanis (1995) (1)
Spain	Methadone service	Opiate-dependent persons	150	n.a.	Borderline: 7 % Antisocial disorders: 6 % Social phobia: 6 % Depression: 5 %	Spanish national report (1)
France	Methadone service	Opiate-dependent persons	3 936	n.a.	Anxiety: 4 % Depression: 3 % Behavioural disorders: 3 % Eating disorders: 2 %	Facy (1999) (1)
Ireland	Inpatient acute psychiatric services	First admissions with a diagnosis of drug dependency (1996–2001)	1 874	26	Depression: 21 % Schizophrenia and other psychoses: 11 % Personality disorders: 19 %	National psychiatric inpatient reporting system (1)
Italy	Mental health services	Lifelong drug users	58	> 22	Mood disorders: 22 % Anxiety: 21 % Schizophrenia: 16 %	Siliquini et al. (2002) (1)
Luxembourg	Specialised drug treatment services	Patients previously in contact with psychiatric services excluding detoxification (1996–2002)	380	32	n.a.	AST/RELIS (2002) (1)
Netherlands	Dutch population	Drug-dependent persons aged 18–64 (1996)	n.a.	n.a.	Depression: 29 % Social phobia: 29 % Bipolar disorders: 24 % Dysthymia: 22 %	Ravelli et al. (1998) (1)
Austria	Different treatment services (review)	Drug clients	n.a.	41–96	Personality disorders, antisocial disorders, borderline, narcissism	Austrian national report (1)
Portugal	Xabregas CAT Treatment Centre	Drug clients	596	> 73	Obsessive-compulsive disorders: 73 % Depression: 72 % Somatisation: 60 % Paranoid ideation: 58 %	Portuguese national report (1)
Finland	Hospitals	Drug-related hospital treatment periods (2002)	2 180	29	Paranoid ideation: 58 % Psychotic disorders: 32 % Mood disorders: 28 % Neurotic disorders: 10 % Personality disorders: 29 %	Hospital patient discharge register
Sweden	University Hospital, Lund	Patients on detoxication ward (1977–95)	1 052	83	Antisocial disorders: 23 % Any psychosis: 14 % Depressive disorders: 11 %	Fridell (1996) (1)
United Kingdom	Community and residential addiction treatment services	Drug-dependent patients, 90 % opiate-addicted	1 075	> 33	Psychoticism Anxiety Depression Paranoia	Marsden et al. (2000) (1)

NB: Data in this table refer to different timeframes (e.g. lifetime or last year's diagnoses).

n.a.: data not available.

(1) More details on this study can be found in the online version of the annual report in Table 12 OL: Co-morbidity country tables.

have served prison sentences is high, and there is increasing recognition that incarceration can contribute to a worsening of mental health problems. The situation is even more dramatic in long-term and high-security prisons.

In Sweden, between 72 % and 84 % of adults in compulsory drug treatment were found to suffer from psychiatric problems in addition to being substance abusers (Gerdner, 2004). Of 46 substance-dependent girls in compulsory care for children and young people, two thirds had psychiatric diagnoses or personality disorders (Jansson and Fridell, 2003).

Obstacles to the treatment of co-morbidity

One of the main obstacles to the diagnosis and treatment of co-morbidity is the fact that psychiatric staff generally have little knowledge of drug treatment and drug-treatment staff generally know little about psychiatry. The paradigms of the two specialties are quite different: one is based on the disciplines of medicine and science, the other on psychosocial methods and theories. Additionally, the philosophy of mental health services is usually concerned principally with preserving the safety of individuals and the public, whereas addiction services expect clients to be motivated, to some degree, to attend treatment. These different points of departure often prevent a global, integrated perception.

As discussed above, both psychiatric teams and substance services regularly fail to identify significant numbers of patients with co-morbidity. When patients with dual diagnosis seek treatment, their acute psychiatric syndromes are often mistaken for substance-induced symptoms or, conversely, withdrawal or intoxication phenomena are misinterpreted as psychiatric illness. Too often, mental-health workers are inclined to send people with co-morbidity to addiction care and workers in addiction care promptly send them back — or vice versa. Continuity of care is impossible under such circumstances. Even when co-morbidity is diagnosed, it is often considered no further in the subsequent treatment interventions (Krausz et al., 1999). The same is true of patients diagnosed with substance use problems in psychiatric care, who normally do not receive any substance-related interventions (Weaver et al., 2003). These generalisations do not, of course, exclude the fact that some psychiatric and drug services achieve very good results with patients with co-morbidity.

In addition, when identified, drug users are often met with suspicion in psychiatric services, and may be refused admission, as may happen to users who are stable on substitution treatment. Similarly, clients may be excluded

from drug treatment because of their mental problems. In Spain, for example, most psychiatric services exclude clients with substance disorders and their staff members have no appropriate training. A survey among Austrian psychotherapists revealed that only some are willing to admit drug-addicted patients as clients (Springer, 2003). From Italy it is reported that there are no clear rules for the referral of clients from drug treatment services to mental health services and that there is resistance in mental health services because of lack of expertise. In Norway, referral from low-threshold drug services to psychiatric treatment is reported to be difficult.

In Greece, 54 % of drug-treatment programmes do not admit drug users with psychiatric disorders. In drug-free residential treatment in Slovenia, and also in other countries, treatment programmes require patients to be drug-free as a condition for admission. In the case of dual diagnosis patients, this presents a serious obstacle, as complete abstinence would require the termination of other treatments, which is not always possible.

Treatment structures

The international literature describes three service delivery models for the treatment of co-morbidity:

1. *Sequential or serial treatment.* Psychiatric and substance disorders are treated consecutively and there is little communication between the services. Patients usually receive treatment for the most serious problems first, and, once this treatment is completed, they are treated for their other problems. However, this model may also lead to patients being passed between services, with no service being able to meet their needs.
2. *Parallel treatment.* Treatment of the two different disorders is undertaken at the same time, with drug and mental health services liaising to provide services concurrently. The two treatment needs are often met with different therapeutic approaches and the medical model of psychiatry may conflict with the psychosocial orientation of drug services.
3. *Integrated treatment.* Treatment is provided within a psychiatric or a drug treatment service or a special co-morbidity programme or service. Cross-referral to other agencies is avoided. Treatments include motivational and behavioural interventions, relapse prevention, pharmacotherapy and social approaches (Abdulrahim, 2001).

The actuality of co-morbidity treatment in the EU, as described in the national reports, is not easily categorised

into these three groups. Integrated treatment is seen as the model of excellence, but it is a standard that is difficult to achieve. Relevant research usually comes from outside Europe. The Australian national co-morbidity project (Commonwealth Department for Health and Ageing, 2003) has concluded from a literature review that approaches to the management and care of co-morbidity clients have not been studied systematically or evaluated rigorously, partly because of the difficulty of studying people with coexisting mental illness and substance abuse disorder, among other reasons because of their irregular lifestyle. Another review concluded that there is evidence that integrated treatment for people with dual diagnosis is beneficial to both mental health and substance use outcomes (Drake et al., 1998). Only one study compared integrated with parallel approaches, but did not find any significant difference, and no study compared integrated and sequential approaches.

Sequential treatment

Some experts, for example in Denmark (Andreason, 2002), the United Kingdom (Department of Health, 2002a) and Norway (Sosial- og helsedepartementet, 1999), believe that the treatment services, at least for the seriously mentally ill with substance use problems, should be based in psychiatry, possibly involving external drug therapists. In Denmark, formalised bridges have been set up between psychiatric hospitals and local drug services. In Luxembourg and in Norway, specific measures have been initiated by psychiatric services to reach individuals in the early stages of schizophrenia, many of whom have serious substance abuse problems, as research indicates that early treatment improves the prognosis.

The Czech national report suggests that addiction problems should usually be considered more urgent than mental problems, as it is more difficult to treat psychiatric disorders when addiction distorts the clinical picture. However, currently, 10–20 % of Czech drug-treatment clients take medication prescribed by a psychiatrist, something that would have been unimaginable some years ago. In Greece, too, medication for psychiatric symptoms is extremely rare in drug-treatment clients. However, in the Greek criminal justice system, mental disorders are considered to prevail over addiction and co-morbid offenders are admitted to a psychiatric hospital either in a prison or in the community (K. Matsa, personal communication, 2004). In Spain, drug users are normally cared for within the drug treatment system and referrals to psychiatric services are made only when disorders are so severe that hospitalisation is necessary.

It has long been the view of some professionals that all pharmacotherapy should be avoided in drug-addicted

persons because of the risk of combined addiction, e.g. to heroin and benzodiazepines, but this view is beginning to be reconsidered (e.g. Popov, 2003). In some cases, there is a tendency to prescribe psychopharmacological medication indiscriminately to drug users, partly because of a lack of time to conduct the necessary investigations. The Austrian national report points out that low compliance among drug users makes pharmacological treatment of psychiatric conditions difficult and, in addition, the combined use of narcotic substances and medicines may, if not properly supervised, lead to interactions between illicit and prescribed medicines or to neutralisation of the prescribed medicine.

Parallel treatment

Shared responsibility for one client between a mental health and a drug service in a parallel treatment model appears to be rare in practice. However, local working groups involving representatives of both drug services and mental health services are often an important medium of exchange, cooperation and networking. In France, Italy and the Netherlands official regulations or protocols oblige drug services to maintain close liaison and preferably establish formal regional agreements with the psychiatric services concerning procedures for referrals and clinical information exchange (Olin and Plaisait, 2003). However, more than half of Dutch dual diagnosis patients believe that such agreements do not result in improved care (Van Rooijen, 2001).

In Luxembourg and Austria, drug treatment staff may follow up their clients who have been referred to psychiatric hospitals. United Kingdom guidelines stress that professionals from both addiction and mental care services should be involved in planning the care of a dual diagnosis client in order to prioritise care pathways (Department of Health, 2002a).

Integrated treatment

Under this model, one team handles the treatment of both disorders. This has the advantage that the client is not confronted with two contradictory messages. In some countries, separate administrative systems (e.g. Spain) or different finance systems (e.g. Germany) complicate such integration.

In most countries there are only a few specialised integrated programmes or units for co-morbidity patients and the availability is far from meeting the demand, as Table 8, which shows available information, demonstrates.

The most common implementation of an integrated treatment model is the employment of psychiatrists in drug

Table 8: Integrated treatment services in various European countries

Country	Integrated treatment services
Belgium	Development of integrated services in the feasibility phase
Germany	First initiatives 20 years ago. The availability of integrated treatment is still inadequate
Greece	One integrated programme started in 1995 and provides two different treatment options, according to the severity of the psychiatric disorder. Results have been positive
Spain	185 centres cared for 4 803 co-morbidity clients in 2002. One specialised integrated unit in Catalonia and one therapeutic community in Cantabria for co-morbidity patients needing residential treatment
Netherlands	Two specialised integrated inpatient treatment wards. Process evaluation to develop best practice is ongoing
Austria	Cooperation between drug service and a nearby psychiatric hospital; some of the hospital psychologists work in the drug treatment facility. Clients stay in drug treatment and are referred to the hospital only if psychiatric symptoms become too severe
United Kingdom	Several integrated services in different community settings. Several dual diagnosis practitioners appointed, based in addiction services or in mental health teams
Norway	One integrated project attached to a psychiatric centre in Oslo. Follow-up and evaluation for up to two years, focusing on basic needs such as housing, work, social benefits and social relations

treatment services and/or drug workers in mental health services. This might be the most practical solution in smaller regions where specialised, integrated clinics are not a viable solution. In Spain, since 2002, general practitioners working in drug treatment have been able to obtain the title 'specialist in psychiatry' if they pass an exam and have documented experience of working with patients with mental disorders. In Portugal, it is mandatory for accreditation and certification for a treatment centre to have at least one psychiatrist on the staff. However, not all psychiatrists working in drug treatment services have the specialist knowledge and training necessary to treat drug users and further specific training may be necessary.

Case management

Case management as a method of coordinating clients' treatment to ensure individualised sequential or simultaneous care as well as helping clients find their way through the treatment system appears to be infrequent in the EU. From France it is reported that cooperation between drug treatment and psychiatric services is being established with a view to organising joint admissions and case management for patients with psychiatric disturbances and addictions; however, such collaboration is often limited to a particular case. In Luxembourg as well as in the Netherlands, professionals have come to recognise that case management is the most effective method of dealing with dual diagnosis patients, but it is costly and time-consuming and requires specific professional skills. However, in some countries, a type of case management known as 'assertive community treatment' is being implemented (see below).

Treatment methods and best practice

The treatment of clients with co-morbidity is characterised by many problems and is extremely demanding on staff and often unrewarding. Clients are often difficult to manage because of their disruptive and aggressive social behaviour, especially those with the more 'dramatic' type of personality disorders, and their emotional instability. Resistance to or failure to comply with treatment rules and requirements, for example keeping appointments or taking medication, is common and the disillusion this causes is made worse by unrewarding personal relationships. Success is generally low and drop-out rates high, which makes treatment time-consuming and costly, as well as frustrating for staff, who, not surprisingly, often experience impatience, suppressed aggression and symptoms of burn-out. A lack of follow-up procedures and aftercare leads to high relapse rates, and both mental and substance disorders frequently become chronic. On the other hand, clients have often had many negative encounters with the support services and may therefore be reluctant or unwilling to undergo treatment.

In spite of this difficult situation, professionals are constantly searching for and developing more effective approaches. Regular, interdisciplinary case discussions and intensive cooperation could remedy the mutual lack of understanding among staff. Such endeavours provide everyone involved with more detailed information about clients and facilitate the development of best practice or strategies for care. The quality of treatment is the most important factor in achieving positive results.

As in so many drug-related areas, documentation, evaluation and research in the area of co-morbidity

treatment is deplorable. The evidence base is far from clear regarding which type of treatment is most successful. The Cochrane collaboration reviewed psychosocial treatment programmes (Ley et al., 2003). The review material was limited: six studies, four of which were small, and all of which were generally of low quality in terms of design and reporting. The main finding was that 'there is no clear evidence supporting an advantage of any type of substance misuse programme for those with serious mental illness over the value of standard care'. The conclusion was that 'implementation of new specialist substance misuse services for those with serious mental illnesses should be within the context of simple, well-designed controlled clinical trials.'

A large overview of international alcohol and drug treatment research found only eight randomised studies on the treatment of drug addicts with severe psychiatric disorders (Jansson and Fridell, 2003). The drop-out rate was extremely high even before the start of treatment. Short-term follow-up revealed that residential treatment, specifically in therapeutic communities, produced better results in terms of living conditions and substance use, but not psychiatric symptoms.

Some features are relevant to all treatment situations. The recommendations presented below are taken from reviews and meta-analyses of internationally published randomised controlled studies of drug treatment (Berglund et al., 2003):

1. There should be a constant focus on changing the drug habit(s).
2. Interventions should have a high level of structure.
3. Interventions should continue long enough to have an impact.
4. Intervention should continue for at least three months, preferably longer.

In the United Kingdom, Department of Health guidelines (Department of Health, 2002b) and research projects and literature reviews (e.g. Crawford, 2001) have moved dual diagnosis up the agenda. However, the evidence base is mainly North American, with less than 10 % of Crawford's abstracts coming from studies in the United Kingdom.

According to a Dutch review of international studies, a potentially effective case management model is assertive community treatment, which includes structural (caseload, teamwork, cooperation with other health professionals), organisational (explicit inclusion criteria, limited admittance of new clients, 24-hour crisis intervention) and content (support and care provided in daily situations, an active approach, frequent contacts) aspects (Wolf et al., 2002). In

Birmingham, United Kingdom, assertive community treatment teams receive training using a manual-based approach, cognitive behavioural integrated treatment. Teams are offered ongoing support to deliver the intervention and are evaluated regarding both process and outcome (Joint Meeting of the Faculty of Substance Misuse of the Royal College of Psychiatrists and the World Psychiatric Association, 2003). In Norway, a few integrated teams based on assertive community treatment are being tested.

The following overview contains evidence of best practice reported by the Reitox national focal points:

- A follow-up study of 219 opiate addicts in treatment in the Hamburg drug services showed a decrease in the use of heroin and cocaine over two years. Some 47 % showed a positive change in psychiatric disorders (Krausz et al., 1999).
- An Italian study found that the results of methadone maintenance treatment were not substantially different in patients with severe or mild psychiatric symptoms, in terms of either retention or heroin use. However, it seems that clients with more severe psychiatric disorders needed higher mean methadone dosages (Pani et al., 2003).
- Dialectical behaviour therapy⁽¹⁷³⁾ is a treatment option that seems to be particularly suitable for women substance users with severe borderline personality disorders and/or suicidal tendencies. However, evidence is limited to few studies. A Dutch controlled trial of dialectical behavioural therapy found that both the experimental and the 'treatment-as-usual' group benefited in terms of exhibiting reductions in self-destructive behaviour. The experimental group showed significantly larger reductions in alcohol use but no differences in drug use were found (Van den Bosch et al., 2001).
- In a Swedish study, repeated administration of the ASI questionnaire throughout the treatment period within a sustainable quality management model revealed that in a two-year follow-up from discharge 46 % of patients had been abstinent. Patients with a dual diagnosis exhibited a more severe problem profile on ASI than patients without a psychosis. In general, there were small changes in personality profiles and symptoms, but for many patients quality of life was higher and life situation more stable at follow-up (Jonsson, 2001).
- In the United Kingdom, Barrowclough et al. (2001) found that the combination of motivational interviewing,

⁽¹⁷³⁾ Dialectical behaviour therapy (DBT) is the application of a broad array of cognitive and behavioural therapeutic strategies to the problems of borderline personality disorder (BPD), including suicidal behaviour.

cognitive behavioural therapy and family interventions produced improvements in patients with schizophrenia and substance misuse disorders.

- An overview of Norwegian treatment studies on clients with co-morbidity concluded that aggressive, impulsive behaviour was best treated with confrontational, structured group therapy combined with family therapy. Depressed or anxious patients benefited more from individual psychotherapy and supportive group therapy (Vaglum, 1996).

Research

A research project on dual diagnosis within the fifth framework research and development programme of the European Commission has recently begun. This prospective multicentre study, including Denmark, France, Poland, Scotland, England and Finland, is designed to describe service provision for patients with dual diagnosis in seven European psychiatric settings and to compare, over a period of 12 months, morbidity and service use between dual-diagnosis and single-diagnosis patients. The outcomes

studied will comprise severity of addiction, psychiatric symptoms, treatment compliance, psychosocial functioning, social network, relapse and mortality. The results are expected in 2005 ⁽¹⁷⁴⁾.

Training

In most countries, doctors and nurses in training receive very little instruction about drug addiction and even less about the issue of co-morbidity. In Italy, joint training of mental health and drug treatment staff has increased. In the Netherlands, the Trimbos Institute organises training courses for both addiction and mental healthcare professionals involved in the treatment of dual diagnosis patients. Other countries report in-service training and courses, but implementation is random and patchy.

In the United Kingdom, the Royal College of Psychiatry undertook a training needs analysis (Mears et al., 2001) with a variety of professional groups, from both mental health and drug services. Some 55 % of the sample reported that they felt inadequately prepared to work with clients with co-morbidity and expressed a need for further training.

⁽¹⁷⁴⁾ See <http://www.entementalhealth.net/papers/kbm02.pdf>.