

# COGNITIVE-BEHAVIOURAL INTEGRATED TREATMENT (C-BIT)

A Treatment Manual for Substance Misuse in  
People with Severe Mental Health Problems

**Hermine L. Graham**

*University of Birmingham, UK*

with

Alex Copello, Max J. Birchwood, Kim T. Mueser,  
Jim Orford, Dermot McGovern, Emma Atkinson,  
Jenny Maslin, Mike Preece, Derek Tobin & George Georgiou



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*To Ida Bentley*





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## ABOUT THE AUTHORS

**Dr Hermine L. Graham** is a Consultant Clinical Psychologist in Birmingham and Solihull Mental Health (NHS) Trust and a Lecturer at the School of Psychology, University of Birmingham. She previously worked as Head of the Combined Psychosis and Substance Use (COMPASS) Programme in Northern Birmingham, UK. In a managerial and clinical research capacity she developed and evaluated an integrated treatment and service model for people with severe mental health problems who use alcohol/drugs problematically. She has published articles within this area and provides national and international consultancy/advice on service and policy developments for this client group. Her clinical and research interests include the application of cognitive therapy for people with combined psychosis and substance use. She has co-edited the book *Substance Misuse in Psychosis: Approaches to Treatment and Service Delivery* (2003), published by John Wiley & Sons, Ltd.

**Dr Alex Copello** is a Consultant Clinical Psychologist, Service Director for the Birmingham NHS Substance Misuse Services, the lead professional for the Trust Addiction Research and Development Programme and a Senior Lecturer in Clinical Psychology at the School of Psychology, the University of Birmingham. His research and clinical interests include the impact of addiction upon families, the evaluation of services for alcohol and drug users and their families both in primary care and specialist settings and the use of qualitative research methods. He has been involved in international cross-cultural research, assessing the impact of addiction on families in Mexico, Australia and, more recently, Italy. Alex is one of the principal investigators on a MRC funded United Kingdom multi-site study evaluating alcohol treatment. He has been involved in developing a social network based treatment that has been evaluated in this study. He publishes regularly in a number of scientific journals and has co-authored the books *Living with Drink: Women Who Live with Problem Drinkers* (1998) and *Substance Misuse in Psychosis: Approaches to Treatment and Service Delivery* (2003).

**Max J. Birchwood** is Director of the Early Intervention Service and Director of Research and Development for Solihull Mental Health (NHS) Trust and Professor of Mental Health at the University of Birmingham, UK. His clinical and research interests have centred around the development of methods of promoting individuals' control over their psychotic symptoms, including the application of cognitive therapy to psychotic symptoms, as in acute psychosis, and the recognition and control of early warning signs of relapse. He has published widely in these areas and is a prominent figure in this field. His books include *Psychological Management of Schizophrenia* (1994), *Cognitive Therapy for Hallucinations, Delusions and Paranoia* (1996), *Early Intervention in Psychosis* (2000) and *Schizophrenia* (2001). He is currently involved in the development of community based early intervention for people with psychosis across the UK and is patron to the National Schizophrenia Fellowship in the UK.

**Kim T. Mueser, PhD** is a licensed Clinical Psychologist and a Professor in the Departments of Psychiatry and Community and Family Medicine at the Dartmouth Medical School in Hanover, New Hampshire. Dr Mueser received his PhD in Clinical Psychology from the University of Illinois at Chicago in 1984 and was on the faculty of the Psychiatry Department at the Medical College of Pennsylvania in Philadelphia until 1994. In 1994 he moved to Dartmouth Medical School. Dr Mueser's clinical and research interests include the psychosocial treatment of severe mental illnesses, dual diagnosis, and posttraumatic stress disorder. He has published extensively and given numerous lectures and workshops on psychiatric rehabilitation. He is the co-author of several books, including *Social Skills Training for Psychiatric Patients* (1989), *Coping with Schizophrenia: A Guide for Families* (1994), *Social Skills Training for Schizophrenia: A Step-by-Step Guide* (1997), *Behavioral Family Therapy for Psychiatric Disorders, Second Edition* (1999) and *Integrated Treatment for Dual Disorders: A Guide to Effective Practice* (2003).

**Jim Orford** trained in Clinical Psychology at the Institute of Psychiatry, London, and later obtained his PhD at the Addiction Research Unit at the Institute. His career has involved substantial commitments to the development of services for people with addiction problems, and the training of clinical psychologists, both in Exeter and later in Birmingham. Apart from a special interest in the addictions, and particularly their impact on the family, about which he has researched and written extensively, his main field of interest is community psychology. In 1992 Wiley published his *Community Psychology: Theory and Practice* and in 2001 the second edition of his *Excessive Appetites: A Psychological View of Addictions*. He is currently Professor of Clinical and Community Psychology in the School of Psychology at the University of Birmingham, and is Head of the Alcohol, Drugs and Addiction Research Group at Birmingham University and Birmingham and Solihull Mental Health NHS Trust.

**Dermot McGovern** has been a Consultant Psychiatrist in the NHS for the past 18 years. He has always had an interest in people with severe mental illness and currently works with both an Assertive Outreach team and an Early Intervention in Psychosis team in Birmingham and Solihull Mental Health Trust. His main research activity has been in the area of the epidemiology, diagnosis and management of schizophrenia.

**Emma Atkinson** is an Occupational Therapist who worked with the COMPASS Programme from 1999–2001, developing occupational therapy based groups and interventions for people with severe mental health problems who use alcohol and drugs problematically. She previously provided occupational therapy input into community based mental health teams for adults and older adults and currently resides in Australia.

**Jenny Maslin** is currently training as a Clinical Psychologist at the University of Hertfordshire. Previously she worked as Research Psychologist with the Combined Psychosis and Substance Use (COMPASS) Programme. Her research interests centre on psychosocial aspects of problem substance use, with a particular focus on life stage issues. In addition to a number of publications she has co-authored the book *Living with Drink: Women Who Live with Problem Drinkers* (1998).

**Mike Preece** is a Clinical Nurse Specialist who has worked for the COMPASS Programme for three and a half years. He has experience of working as an alcohol counsellor and on a busy inner city primary care mental health team. Currently he is in the final year of a Masters Degree Programme in Community Mental Health. Mike is responsible for facilitating and developing Cognitive Behavioural Integrated Treatment in one of the Community Based Assertive Outreach Teams. He takes a lead role in organising and developing training based on requests made to the COMPASS Programme by other services. Since joining the COMPASS Programme he has gained experience in teaching nursing students at Birmingham University and multi-disciplinary staff across the Trust.

**Derek Tobin** is a Clinical Nurse Specialist working in the COMPASS Programme in Northern Birmingham Mental Health Trust. His background is in mental health nursing with experience of working with people who experience severe and enduring mental health problems in the community. He is currently involved in the COMPASS Programme's Research Project: Evaluating Cognitive Behavioural integrated Treatment. Within this role he is responsible for facilitating the development of this model within one of the community-based Assertive Outreach Teams. He is currently developing the COMPASS Programme's consultation liaison service based on a brief intervention which supports staff within mental health and substance misuse

services to work with clients with combined severe mental illness and drug and alcohol problems. Since joining the COMPASS Programme he has completed a BSc (Hons) degree in Mental Health Studies. He is also involved in teaching pre- and post-registration nursing students at Birmingham University and the University of Central England.

**Dr George Georgiou** is a Consultant Psychiatrist at the Addictive Behaviours Centre, Birmingham UK, and Honorary Senior Clinical Lecturer in the Department of Neurosciences, University of Birmingham. He initially trained as a general practitioner in Medicine before undertaking a career in psychiatry and addiction. Recently his work has focused on the treatment of patients of co-morbid substance misuse and either physical or mental illness. This includes work with people who are undergoing liver transplant, as well as the application of techniques developed in the addiction field, both pharmacological and psychological, in this group of patients.



## AIMS OF THE BOOK

This book is designed to provide guidelines to clinicians (mental health/addiction) for the treatment of problematic drug/alcohol use in their clients with severe mental health problems. The C-BIT treatment approach was initially designed for use in settings that provide some assertive outreach, although components can be used with clients in settings where such outreach is not possible. While the majority of the book describes a treatment approach called “Cognitive-Behavioural Integrated Treatment (C-BIT)”, in the first section we seek to set the scene by outlining some of the background issues concerning substance use and mental health problems. In this section, we summarise the prevalence rates of substance misuse in people with severe mental health problems, the impact of alcohol and drugs on mental health and social functioning, and an introduction to why and how cognitive-behaviour therapy has been applied to this client group.

Part Two of the book will take you through the C-BIT approach in a step-by-step manner. It will guide you through how to deliver interventions appropriate to your client’s stage of engagement with you. Illustrative case material is used throughout, and techniques are suggested to tackle obstacles to behaviour change that may arise during the course of treatment sessions.

The final section of the book will address some of the key issues involved in the process of implementing integrated treatment.



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PART ONE

INTRODUCTION TO COGNITIVE-  
BEHAVIOURAL INTEGRATED  
TREATMENT (C-BIT)



## Chapter 1

# ISSUES IN WORKING WITH THOSE WITH COEXISTING SEVERE MENTAL HEALTH PROBLEMS WHO USE SUBSTANCES PROBLEMATICALLY

## **THE NATURE OF COEXISTING SEVERE MENTAL HEALTH AND ALCOHOL/DRUG PROBLEMS**

Although there has been an increasing awareness of problem substance use in clients with severe mental health problems (that is, “dual diagnosis”), it continues to be underrecognised in the psychiatric population. Even when treatment providers correctly identify substance misuse, the treatment response has often been inappropriate and ineffective. The result of inadequate assessment and ineffective treatment of these clients is a poor course of illness, including more frequent relapses and rehospitalisations, the increased costs of care and containment being borne by families, clinicians, law enforcement, society and the individual.

Effective treatment of this client group and improvement of their long-term prognosis rests with clinicians and treatment providers working in collaboration with clients and their carers. Clinicians thus need to be familiar with current knowledge about alcohol and drug use in the psychiatric population.

### **Prevalence of Problem Substance Use**

The Epidemiologic Catchment Area (ECA) study of over 20 000 people in the USA found that 47 per cent of those with a diagnosis of schizophrenia and 60.7

per cent of those with bipolar disorder had substance use problems in their lifetime compared with 16.7 per cent in the general population (Reiger et al., 1990) found lifetime prevalence rates of alcohol use disorder of 43 per cent among clients with a diagnosis of schizophrenia, and higher rates for those with schizoaffective disorder (61 per cent), bipolar disorder (52 per cent) and major depression (48 per cent). Studies in treatment settings in the UK have tended to look at 1-year prevalence rates. For example, Graham et al. (2001) found that 24 per cent of clients with a severe mental health diagnosis were identified by their keyworkers as having used substances problematically in the past year. Menezes et al. (1996) identified a 1-year prevalence rate of 36.3 per cent among clients with a functional psychosis. Studies in the USA, have typically found recent rates of substance misuse in this population of 25–35 per cent.

Studies of the prevalence of substance use problems in people with severe mental health problems have shown significant variations. A number of contributory factors have been highlighted (Weiss, Mirin & Griffin, 1992; Warner et al., 1994). These include variations in the method used to assess substance use, the time period used (for example, problematic use in the past year versus problematic use over the course of the lifetime), diagnostic criteria for mental health and substance use problems, and the setting where substance use is assessed. Nonetheless, the studies all point to higher rates of problematic use of alcohol and drugs (abuse and dependent use) among those with mental health problems than the general population.

### **Types of Substances Used**

The substances typically misused by people with severe mental health problems include alcohol, cannabis and stimulants (cocaine/crack and amphetamine). The question of whether people diagnosed with certain mental health problems are more prone to misusing particular types of substances has been the topic of much debate. Early reviews suggested that people with schizophrenia were more likely to use stimulants problematically than clients with other mental health problems (e.g., Schneier & Siris, 1987). However, more recent and larger studies of the prevalence of specific types of substance misuse in clients with a variety of severe mental health problems, including the ECA and the National Comorbidity Survey (NCS) (Kessler et al., 1996), have failed to replicate this finding (Kessler et al., 1996; Regier et al., 1990). The evidence suggests *availability* is the primary determinant of which specific substances are misused (Mueser et al., 1992), as opposed to the subjective effects. It is important not to overlook the fact that a very high proportion of clients with severe mental health problems smoke tobacco (de Leon et al., 1995; Hall et al., 1995; Hughes et al., 1986; Postma & Kumari, 2002). Due to the



limited information currently available about the use of tobacco in this population or its interaction with mental health problems, tobacco use will not be addressed in this manual.

### **Demographic and Clinical Correlates of Substance Use Problems**

Understanding which clients with severe mental health problems are most likely to have problems with alcohol/drugs can facilitate the early recognition and treatment of these clients. A number of reviews of the demographic, clinical and historical factors associated with this client group have been carried out (e.g., Dixon, Goldman & Hiram, 1999; Drake & Brunette, 1998; Mueser et al., 1995). A number of demographic characteristics are correlated with substance misuse. In the main, the same characteristics that are related to problem substance use in the general population are also related to problem substance use in people with severe mental health problems. These include being male, young and single, and having lower levels of education. The clinical correlates include poor engagement and adherence with treatment. Additional correlates related to the personal history of individuals that have been identified include initial better pre-morbid social functioning, antisocial personality disorder (ASPD), family history of substance use problems, trauma and post-traumatic stress disorder.

### **The Impact of Substance Use Problems on Severe Mental Health Problems**

It has been suggested that people with severe mental health problems who use substances problematically often experience greater adverse social, health, economic and psychological consequences than those who do not. These consequences are said to be exacerbated by the problematic use of substances (Drake & Brunette, 1998; Mueser et al., 1998a). Problematic substance use can lead to an increased risk of relapse and rehospitalisations (Hunt, Bergen & Bashir, 2002; Linszen et al., 1996; Swofford et al., 1996). The strongest evidence linking symptom severity and substance use is the effect of alcohol on worsening depression. The risk of suicide is significantly increased in persons with a primary substance use problem (Meyer, Babor & Hesselbrock, 1988), as well as in individuals with schizophrenia, bipolar disorder and major depression (Drake et al., 1985; Roy, 1986). This risk is compounded in persons who have severe mental health problems and use substances problematically (Bartels, Drake & McHugo, 1992; Torrey, Drake & Bartels, 1996).

Substance use problems among this population are associated with increased “burden” on family members, as well as interpersonal conflicts with relatives and friends (Dixon, McNary & Lehman, 1995; Kashner et al., 1991; Salyers & Mueser, 2001). Financial problems often accompany chronic substance use, as clients spend their money on drugs and alcohol rather than essentials such as food, clothing and rent. In addition, substances or craving for substances can contribute to disinhibitory effects that result in aggression and violence toward family, friends, treatment providers and strangers (Steadman et al., 1998; Swartz et al., 1998; Yesavage & Zarcone, 1983). The combined effect of problematic substance use on family burden, interpersonal conflict, financial problems, and aggression and violence often renders these clients highly vulnerable to housing instability, homelessness and exploitation (Drake, Wallach & Hoffman, 1989; Pickett-Schenk, Banghart & Cook, 2003). Furthermore, problematic substance use can result in illegal behaviours (such as possession of illegal drugs, disorderly conduct secondary to alcohol/drug use, or theft or assault resulting from efforts to obtain drugs), leading to high rates of incarceration (Mueser et al., 2001). In addition to the clinical, social and legal consequences of problem substance use, severe health consequences are also common. Substance misuse may contribute to risky behaviours, such as unprotected sex and sharing needles, that are associated with HIV and hepatitis infection (Cournos et al., 1991; Razzano, 2003; Rosenberg et al., 2001a,b).

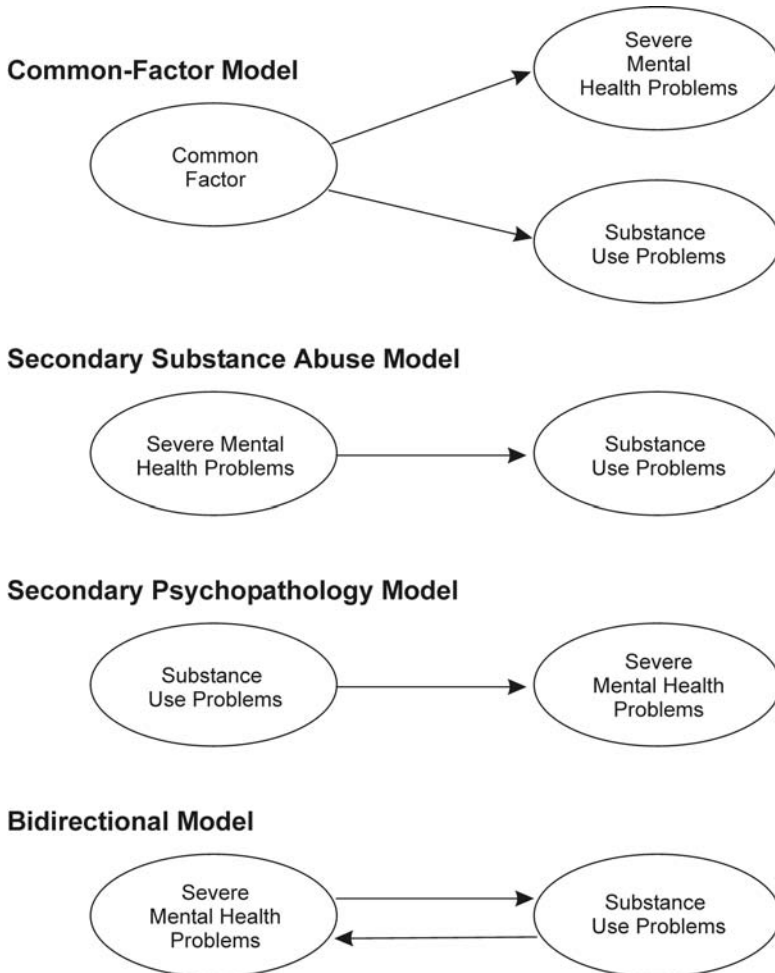
## MODELS OF COMORBIDITY

As we have previously mentioned, people with severe mental health problems are at much greater risk of developing problems with alcohol/drugs than people in the general population. What accounts for the higher rates? Understanding the factors that contribute to the high rate of comorbidity may provide clues useful in the treatment of this client group.

Kushner and Mueser (1993) have described four general models that might account for the high rate of comorbidity between substance use and severe mental health problems. These models include the *common factor* model, the *secondary substance abuse* model, the *secondary psychopathology* model and the *bidirectional* model. These models are summarised in Figure 1.1. For a more in-depth review, see Mueser, Drake and Wallach (1998), and Phillips and Johnson (2001). For disorder-specific reviews, see Blanchard et al. (2000) on schizophrenia, Kushner, Abrams and Borchardt (2000) on anxiety disorders, Strakowski et al. (2000) on bipolar disorder, Swendsen and Merikangas (2000) on depression and Trull et al. (2000) on borderline personality disorder.

Common factor models propose that one or more factors independently increase the risk of both mental health and substance use problems. That is,

there are shared vulnerabilities to both disorders. Three potential common factors have been the focus of some research—familial (genetic) factors, ASPD and common neurobiological dysfunction—although many other factors are possible. If genetic factors, ASPD or some other factor was found



**Figure 1.1** Models of comorbidity  
From Mueser et al. (2003)

independently to increase the risk of both mental health and substance use problems, this would support the common factor model.

Secondary substance abuse models posit that high rates of comorbidity are the consequence of primary mental health problems leading to substance use problems. Within this general model, three different models have been suggested: *psychosocial risk factor* models (that is, clients use substances to “feel better”; this includes the self-medication, the alleviation of dysphoria and the multiple risk factor models), the *supersensitivity model* (that is, psychological vulnerability to mental health problems results in sensitivity to small amounts of alcohol and drugs, leading to substance use problems) and *iatrogenic vulnerability to substance abuse*.

The secondary psychopathology model of comorbidity is the exact opposite of secondary substance abuse models. Secondary psychopathology models posit that substance use problems lead to or trigger a long-term psychiatric disturbance that would not otherwise have developed.

The bidirectional models propose that severe mental health and substance use problems interact to trigger and maintain each other. For example, substance use problems trigger severe mental health problems in a vulnerable individual. The severe mental health problems are then subsequently maintained by continued substance use due to socially learned cognitive factors such as beliefs, expectancies and motives for substance use (Mueser, Drake & Wallach, 1998).

The available research evidence suggests that there are many possible explanations for why clients with severe mental health problems are so vulnerable to substance use problems. No single model can explain this, and it is likely that multiple models contribute to the coexistence of these two problems, both within and across clients. Thus, in summary, different theories have been proposed to address the high rates of coexistence of severe mental health and substance use problems. Two models have the greatest empirical support: the supersensitivity model (that is, biological vulnerability to mental health problems lowers the threshold for experiencing negative consequences from relatively small quantities of substances) and the ASPD common factor model (that is, ASPD independently increases the risk of developing a severe mental health problem and a substance use problem). However, it is important to note that common social and personal factors (for example, socio-economic factors and deprivation) may also increase the likelihood of ASPD, thereby, in turn, increasing the likelihood of the development of coexisting mental health and substance use problems. The self-medication model (that is, high comorbidity is due to clients’ attempts to treat their own symptoms with substances) does not appear to explain the high rate of substance misuse in clients with severe mental health problems, although there does appear to be an association between dysphoria and increased rates of substance use problems.

**So remember,**

- the prevalence of substance abuse/dependence is higher in clients with severe mental health problems than in the general population
- alcohol is typically the most commonly misused substance, followed by cannabis and cocaine/crack, although drug misuse may be more common in some urban areas
- diagnostic groups do not tend to differ in their preference for one type of substance over another; availability is the most important determinant of which substances are used problematically
- higher rates of substance abuse tend to be found in clients who are male, young, poorly educated and single
- substance use problems are associated with a wide range of negative outcomes, including relapses and rehospitalisations, violence, suicide, interpersonal problems, legal repercussions, health consequences and higher treatment costs
- two of the models proposed to address the high rate of coexistence of severe mental health and substance use problems have the greatest empirical support: the supersensitivity model and the common-factor model; the self-medication model does not have great support.

**OBSTACLES TO TREATMENT AND BEHAVIOUR CHANGE**

When clinicians attempt to engage and offer treatment to clients with severe mental health problems who use alcohol/drugs problematically, they often encounter a number of obstacles to change. Some of these may be due to motivation, cognitive deficits and social factors that are directly related to experiencing severe mental health problems (Bellack & Gearon, 1998; Drake et al., 2001). In working with this population, it is important to take these factors into consideration.

**Motivation**

People in the general population who use substances problematically often experience fluctuating motivation to change. However, among those with severe mental health problems, motivation is often confounded by a number of additional factors. These include low self-efficacy, primary negative symptoms of severe mental health problems, such as loss of motivation, energy and drive, apathy and difficulty in experiencing interest or pleasure, and secondary negative symptoms, such as depression and the side effects of

medication. Such factors serve generally to reduce motivation among people with severe mental health problems; however, the presence of substance use problems often exacerbates this. Clients may minimise problems related to substance use and focus solely on the perceived positive benefits associated with using substances in the absence of other positive, powerful reinforcers. Thus, motivation often waxes and wanes.

## **Cognitive**

Cognitive functioning is important in making and sustaining changes in behaviour, particularly substance use. People with severe mental health problems, notably schizophrenia, experience significant cognitive impairment (Bellack & Gearon, 1998), some of which may be due in part to the side effects of medication. Specific deficits in the areas of attention, memory, complex cognitive processes and ability for self-reflection are likely to impair utilisation of the standard cognitive and behavioural skills to change alcohol/drug use (Bellack & DiClemente, 1999; Bellack & Gearon, 1998).

## **Social**

The experience of severe mental health problems is often associated with significant feelings of loss. People often lose a social role, and they can be excluded from the normative routes of gaining pleasure and social contact due to the associated stigma of mental health problems. Poor skills and confidence in social situations, school and vocational failure, poverty, lack of adult role responsibilities, lack of structured and meaningful daily activities, and living in neighbourhoods with high rates of drug availability and deviant subgroups may increase exposure to substance-using social networks (Dusenbury, Botvin & James-Ortiz, 1989; Pandina et al., 1990), and substance use may facilitate social interactions with peers (Drake, Brunette & Mueser, 1998; Salyers & Mueser, 2001). The combined effect of severe mental health problems and problematic substance use on interpersonal conflict and financial problems often renders these clients highly vulnerable socially to exploitation by drug dealers and involvement in illegal behaviours (Mueser et al., 2001).

All of these factors can present as obstacles to engaging clients in treatment and behaviour change. However, awareness of these factors can signal the specific treatment needs of this population and guide the treatment-planning process.

## **TREATMENT NEEDS**

The C-BIT approach is based on the principles of integrated treatment (Drake et al., 2001; Graham et al., 2003; Mueser, Drake & Noordsy, 1998a; Mueser