

## REVIEW

## Predictive Factors for Relapse after an Integrated Inpatient Treatment Programme for Unipolar Depressed and Bipolar Alcoholics

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**Abstract** — **Aim:** The aim of this study was to examine prospectively examined predictors of relapse in alcohol dependence with comorbid affective disorder. **Methods:** One hundred and eighty-three unipolar depressed or bipolar alcoholics who completed an integrated inpatient treatment programme for dual diagnosis were assessed at baseline, post-treatment discharge and at 3 and 6 months post treatment. Backwards stepwise likelihood ratio multiple logistic regression was used to investigate the impact of multiple covariates on relapse to alcohol in the 0–3- and 3–6-month period post discharge. **Results:** The retention rate at 3 months post discharge was 95.3% (177 patients) and at 6 months it was 87.4% (162 patients). Higher level of anxiety at baseline and discharge was significantly associated with relapse at 3, but not at 6 months, in all subjects. Higher baseline alcohol use disorder identification test scores were associated with relapse at 3 and at 6 months. Intention and planning to attend aftercare after discharge from the hospital were associated with non-relapse at 3 and 6 months, respectively. Levels of depression, of elation and of craving at baseline were not significantly predictive of relapse. Those who had relapsed at 3 months were significantly more likely to remain drinking at 6 months. Rehospitalization within the first 3 months post discharge appeared to be protective against further relapse. **Conclusions:** Baseline patient factors, including levels of anxiety, appear to play a significant role in relapse to alcohol in this difficult to treat population.

## INTRODUCTION

Alcohol dependence is relatively common, with recent figures suggesting a lifetime rate of 12.5% in the USA (Hasin *et al.*, 2007). There is a significant comorbidity associated with it, and mood disorders including depression and bipolar affective disorders have a lifetime rate of 13.5 and 3.3%, respectively (Grant *et al.*, 2005; Hasin *et al.*, 2005). This produces an increased adjusted odds ratio of 2.2 for lifetime major depression in alcohol dependence, and a ratio of 4.6 for bipolar 1 disorder and of 3.0 for bipolar 2 disorder in alcohol dependence (Hasin *et al.*, 2007). (The Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) (American Psychiatric Association, 1994) defines Bipolar 1 Disorder as characterized by one or more manic or mixed episodes, usually accompanied by major depressive episodes; the patient may become delusional and may suffer hallucinations. DSM-IV characterizes Bipolar 2 as one or more major depressive episodes accompanied by at least one hypomanic episode. The main difference between bipolar 1 and bipolar 2 is that bipolar 2 has *hypomanic* but not *manic* episodes, meaning the symptoms of mania are generally less severe in bipolar 2 and patients with bipolar 2 cannot have psychotic features.) Subjects with a dual diagnosis of both alcohol dependence and an affective disorder have a worse prognosis (Mueller *et al.*, 1994), are more difficult to treat and are more costly to treat than those with either disorder alone (Hoff and Rosenheck, 1999; Hasin *et al.*, 2002; Burns *et al.*, 2005). There is evidence that comorbidity of alcohol dependence with affective disorders has a negative impact upon prognosis measured in terms of rates of remission, relapse and risk of suicide (Potash *et al.*, 2000; Dreissen *et al.*, 2001; Burns *et al.*, 2005).

Relapse to substance abuse is one of the most significant difficulties facing addiction and dual diagnosis patients. Estimated rates of relapse among individuals with substance use disorders alone have varied widely in relation to follow-up

interval and definition of relapse, typically ranging from 40 to 60% within the first few months after treatment and as high as 70–80% by the end of 1 year (Bradizza *et al.*, 2006; McKay *et al.*, 2006; Walitzer and Dearing, 2006). Some longer follow-up studies of specific treatments for alcohol dependence have noted a 30% abstinence rate after 3 years (Project MATCH Research Group, 1998) and up to 50% abstinence over 9 years with ongoing outpatient care utilizing disulfiram (Krampe *et al.*, 2006). A 20-year alcohol dependence treatment follow-up found that from 393 patients interviewed, 277 (32.6%) were abstinent from alcohol; however, 32% of the original 850 patients had died (Gual *et al.*, 2009). Predictive factors for relapse in alcoholism include treatment drop out (Bottlender and Soyka, 2005), anxiety symptoms (Driessen *et al.*, 2001; Kushner *et al.*, 2005), depressive symptoms (Hasin *et al.*, 2002; Gamble *et al.*, 2010) and high craving for alcohol (Bottlender and Soyka 2004; Gordon *et al.*, 2006).

Treatment response of dually diagnosed alcoholic and affective-disordered subjects after specific interventions has been studied by Farren and McElroy (2008), Nunes and Levin (2004), Torrens *et al.* (2005) and Weiss *et al.* (2007). Pharmacotherapy trials in depressed alcoholics have shown both significant or moderate treatment response (Cornelius *et al.*, 1997; Mason *et al.*, 1996; Pettinati *et al.*, 2010) and some with no added benefit for the pharmacotherapy (Pettinati *et al.*, 2001; Kranzler *et al.*, 2006). There appears to be more evidence for a depression treatment response than an alcohol treatment response (Nunes and Levin, 2004) in depressed alcoholics. For bipolar alcoholics, there has been some evidence for pharmacotherapy treatment efficacy (Salloum *et al.*, 2005; Brown *et al.*, 2008), but there are few well-controlled studies. Some of the research problems in dually diagnosed alcoholic patients include: poor measurement of substance abuse or psychiatric outcomes, small sample sizes and low completion rates (Tiet and Mausbach, 2007).