

## The Feasibility of a Cognitive Behavioural Intervention for Low Self-Esteem within a Dual Diagnosis Inpatient Population

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**Abstract.** Low self-esteem is a common characteristic amongst populations with schizophrenia and co-morbid substance abuse (dual diagnosis) and has been linked to increased psychopathology, substance abuse and lower social functioning. The following study built upon the promising results of Hall and Tarrier (2003) and examined the feasibility and clinical utility of a cognitive behavioural intervention for low self-esteem within a population of dual diagnosis inpatients. A small sample of dual diagnosis inpatients ( $N = 23$ ) were screened during a one-month wait list period to ensure stability in presentation of low self-esteem, psychopathology and substance abuse before commencing a brief eight-session intervention for low self-esteem. Results collected post intervention showed participants displayed significant increases in levels of self-esteem and corresponding significant decreases in depressive symptoms and psychopathology associated with schizophrenia. These improvements were maintained at 3-month follow-up. Outcomes were examined in terms of identifying and implementing beneficial treatments for dual diagnosis populations within everyday psychiatric settings, a population often considered one of the most challenging to treat.

*Keywords:* Dual diagnosis, self-esteem, cognitive behaviour therapy.

### Introduction

Low self-esteem is a common characteristic within psychiatric populations and has been linked to increased levels of substance abuse, depression, suicidal behaviour and lower levels of social functioning (Lecomte et al., 1999). Low self-esteem in itself can be considered a mental health problem and a potential mediating factor in psychopathology and substance abuse. A number of studies have documented that improvements in self esteem can lead to corresponding improvements in levels of psychopathology, coping strategies and social functioning within a schizophrenic population (Lecomte et al., 1999; Hall and Tarrier 2003).

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The concurrent diagnosis of schizophrenia and substance abuse is commonly called dual diagnosis. It is estimated that up to 50% of patients with schizophrenia will also show a prevalence of substance abuse. Low self-esteem is also a frequent characteristic amongst dual diagnosis and the relationship between low self-esteem and substance abuse is well established (Majer, Jason and Olson, 2004). Several studies have shown that high levels of self-efficacy, a product of healthy levels of self-esteem, can promote abstinence and prevent relapse amongst substance abusers. This pilot study aims to evaluate the feasibility of a brief cognitive behavioural intervention for enduring low self-esteem within dual diagnosis. The study will examine the characteristics of participants treated, resources utilised and clinical benefits of this intervention when carried out within an everyday clinical setting. It is hoped that outcomes will further clarify the relationship between low self-esteem, psychopathology and substance abuse.

## Method

### *Participants*

Subjects were all dual diagnosis inpatients that were stable in psychiatric symptoms and abstained from active substance abuse a month prior to commencing treatment. All participants had enduring low self-esteem (one month or more in duration) and were willing to participate in the intervention.

### *Measures*

Three standardized and validated instruments were used to assess self-esteem (Robson Self-concept Questionnaire: SCQ), depression, (Beck Depression Inventory: BDI) and psychopathology (Positive and Negative Symptom Scale: PANSS). Acceptable concordance on PANSS ratings was achieved using a standard training video. Monitoring of substance abuse involved regular urine screens and subjective ratings of participants' motivation and attitudes to drug misuse.

### *Experimental design*

The study used repeated-measures within subjects' experimental design, where all subjects received the intervention and completed pre and post treatment assessments. Participants were monitored for stability in symptoms and substance abuse during a one month waiting-list non intervention period and completed assessments after therapy and at 3-month follow-up.

### *Treatment*

The cognitive behavioural treatment consisted of 8 individual weekly sessions where self-esteem was conceptualized as a generic cognitive representation of the self, which is derived from specific experiences and guides subsequent information processing and behaviour. Low self-esteem is defined as a learned, negative global judgment about self, which shapes how a person thinks, feels and acts on a day-to-day basis (Fennell, 1999). The protocol was modified from an intervention developed by Tarrier and his colleagues (Tarrier, 2001). The goal of the

intervention was to challenge negative schema and to generate positive attributes in order to improve global self-esteem. Participants were asked to generate up to 10 positive qualities or characteristics and rate their conviction on the degree they possessed each of them on a 1–100 scale (0 = not at all, 100 = absolute conviction). Guided discovery was used to ensure the qualities selected were meaningful and important to the participant. Participants selected one or two characteristics and were asked to generate practical examples of them displaying each quality. Attention was given to the specific behaviours, context, emotions and cognitive experiences associated with each quality. Participants were then asked to re-rate their belief and this typically resulted in an increase in their conviction that they displayed the positive quality. This change in conviction was highlighted to participants. Participants were given homework to monitor their behaviour over the following week and record specific evidence to support the presence of the positive characteristics. At the start of each session these concrete examples were used to reinforce the possession of positive characteristics and directly influence levels of self-esteem.

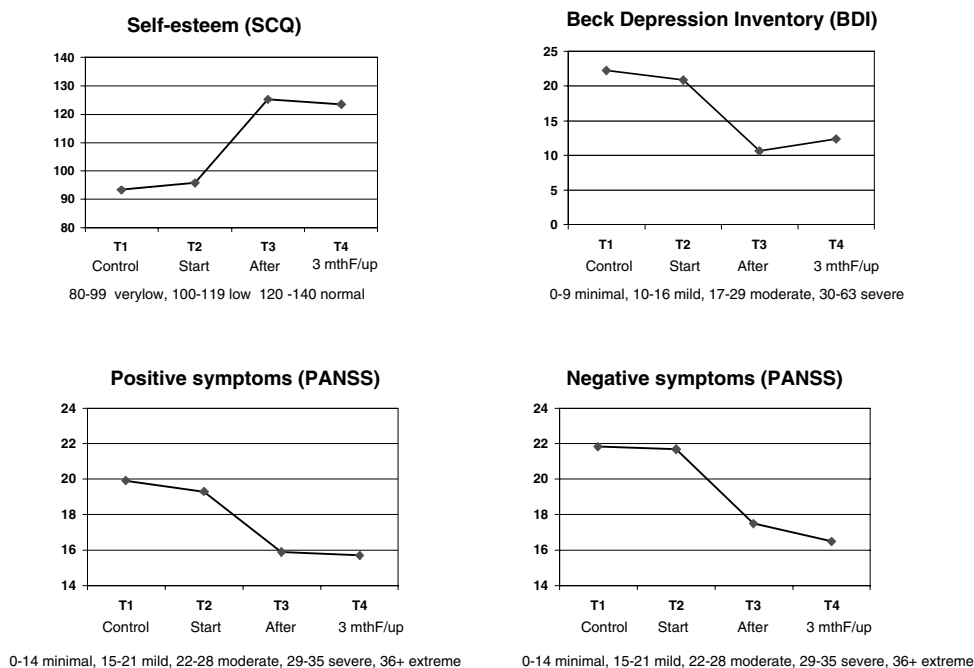
A number of adaptations were made to the original treatment protocol to accommodate for dual diagnosis. To help accommodate for cognitive impairments such as memory deficits and limited concentration, participants were only required to complete brief questionnaires on two clinically relevant outcomes (self-esteem and depression). Staff were also trained to support patients in a consistent manner to ensure the reliability and validity of responses obtained. To combat variable patient motivation staff employed a range of techniques to facilitate engagement and identify meaningful treatment goals.

## Results

A total of 23 patients met the inclusion criteria and agreed to participate in the study. Seven patients dropped out before completing the intervention. A comparison of characteristics between the completers and non-completers revealed that they were similar in levels of low self-esteem, psychopathology, age, duration of illness and sex distribution, although the non-completers had more admissions than the completers (mean of 14.8 admissions versus 6.8 admissions). Participants that completed treatment ( $N = 16$ ) had a diagnosis of paranoid schizophrenia (80%) or schizoaffective disorder (20%) and abused cannabis (50%), alcohol (18%) or a mixture of both (32%). The majority were male (75%) and displayed moderate levels of psychopathology and low self-esteem. The average length of psychiatric illness and substance abuse was 8.5 years and 7.8 years respectively. Patients received an average of 3.7 months inpatient treatment prior to the intervention and all assessments were carried out on the ward.

The test-retest correlations for each measure were excellent and revealed an ICC of 0.81, 0.96 and 0.96 for SCQ, BDI and PANSS respectively. A test of within-subjects contrasts revealed a large within-subject effect (i.e. changes pre and post intervention) observed for all measures. Thus, there was a significant improvement in self-esteem and significant decrease in depressive symptoms and psychopathology. A graphical summary of the changes is provided in Figure 1.

The Reliable Change Index (RCI) (Jacobson and Truax, 1991) was applied to determine the number of participants that showed significant clinical change. The standard deviation of the sample at baseline was used in this calculation, due to the unavailability of suitable Danish norms. A participant was deemed to have achieved reliable change if the RCI was above 1.96



**Figure 1.** Summary of results for low self-esteem intervention

**Table 1.** Percentage of participants that showed significant clinical change

Measure	Time 1 (After)	Time 2 (3mths)	Total number of participants able to display clinical change
Self-esteem (SCQ)	69% (11/16)	69% (11/16)	<i>N</i> = 16
Depressive symptoms (BDI)	64% (9/14)	64% (9/14)	<i>N</i> = 14
Positive psychopathology (PANSS)	63% (10/16)	50% (8/16)	<i>N</i> = 16
Negative psychopathology (PANSS)	56% (9/16)	63% (10/16)	<i>N</i> = 16

or below  $-1.96$  standard deviations. The percentage of participants showing reliable change for each of the measures is contained in Table 1.

As expected, the most significant amount of clinical change was for self-esteem, with nearly 70% of participants ( $N = 11/16$ ) showing a marked increase. A total of 64% of participants ( $N = 9/14$ ) reported significant clinical change in depressive symptoms. These improvements were maintained at 3-month follow-up. A total of 63% ( $N = 10/16$ ) of participants showed a significant clinical reduction in positive psychopathology after treatment, although this percentage fell to 50% at 3-month follow-up. The reverse pattern was found for negative psychopathology where 56% of participants ( $N = 9/16$ ) showed significant improvement after treatment, which increased to 63% at 3-month follow-up.

Qualitative feedback from participants that completed treatment revealed that the majority found the treatment format easy to understand and were able to complete the homework

exercises with support from ward staff. Participants also reported an increased motivation to participate in treatment as it focused on qualities that were directly meaningful for them. Several participants reported an increased ability to cope with their symptoms associated with schizophrenia, especially negative symptoms. All participants also reported a reduction in the desire to abuse substances and an increased ability to use coping strategies to avoid substance abuse.

### Discussion

This study evaluated the feasibility of a cognitive behavioural intervention for enduring low self-esteem within dual diagnosis patients, when implemented in a routine inpatient setting. All participants were inpatients, stable in symptoms/drug abuse, had enduring low self-esteem and were motivated to participate in the intervention. Patients actively abusing substances were excluded from the study and therefore the sample cannot be considered representative for all dual diagnosis inpatients. Rather the participants represented a significant sub-group of dual diagnosis inpatients, which was relatively stable in symptoms/drug abuse and with marked negative psychopathology.

An audit of the resources required to implement the intervention revealed that therapists and ward staff invested a combined total of 30 hours per participant. A good grounding in cognitive behavioural principles and awareness of treatment issues for dual diagnosis populations was required by all personnel. Based on this simple audit, it is considered feasible that the current intervention could be successfully implemented in a range of inpatient settings without major changes to organizational structure or the significant investment of time, training of personnel or supporting participants. Indeed, the ability to integrate new practices within existing service structures can be an important factor in the successful uptake of such initiatives.

Using the Reliable Change Index (RCI) as a stringent measure of change, the total number of participants accepted for treatment ( $N = 23$ ) that showed significant clinical improvement was 40% for self-esteem, 35% for negative psychopathology and depressive symptoms, and 20% for positive symptomatology. Whilst the total percentage of participants that showed significant clinical improvement was modest, the outcomes are still considered noteworthy, given that dual diagnosis populations often show poorer outcomes and higher dropout rates compared to other mental health populations.

Whilst these results from the pilot study are promising, the study had several limitations. First, the study did not include a comparison control group, although it did use a one-month waitlist non-intervention period to establish the stability of symptoms prior to commencement of the intervention. Second, whilst assessors were independent from treatment, they were not blind to the aim of the study. Third, the intervention took place within the relatively controlled conditions of a hospital ward and whether the intervention would have been as acceptable or as effective within a community setting is unknown. Finally, the sample size of eligible patients was relatively small and the attrition rate was substantial.

In conclusion, whilst acknowledging the preliminary nature of these results, the outcomes from this pilot study support the feasibility of this brief CBT intervention for dual diagnosis inpatients. The results provide further evidence that self-esteem can be an important mediating factor on levels of psychopathology and attitudes to substance abuse. Importantly, the intervention was not overly difficult to implement, used moderate staff resources and resulted in clinically meaningful outcomes. Future studies could examine the effectiveness and

clinical utility of the intervention across a range of settings populations incorporating a matched control condition. Special attention should be given to incorporating techniques that facilitate engagement such as aligning the intervention to the participants' stage of illness and establishing meaningful treatment goals in order to maximize clinical outcomes, for a diagnostic group often neglected within traditional psychiatric services.

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