Effectiveness of a cognitive-behavioral group intervention for comorbid anxiety and mood disorders in partially responder outpatients

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Key words: cognitive-behavioral group intervention; reliable change index; unwanted effects; anxiety and mood disorders comorbidity; effectiveness

Abstract

OBJECTIVE: The purpose of this study was to evaluate the effectiveness of a short-term Cognitive-Behavioral Group Intervention for comorbid Anxiety and Mood Disorders in partially pharmacotherapy responder outpatients and to test the feasibility of this intervention as complementary treatment in psychiatric settings.

DESIGN: Thirty-three participants have been assessed for the overall psychopathological symptoms, depression and anxiety before and after an 8 weeks group intervention, while following their pharmacological treatment as usual. The contents of the cognitive-behavioral group intervention have been psychoeducation, relaxation techniques, life-style management, emotional regulation techniques, meditative techniques, cognitive restructuring, addressed to support the patients in reducing their symptoms and learning self-regulatory and self-management skills.

Statistically and clinically significant change analyses have been conducted, included the evaluation of the unwanted effects.

RESULTS: The outcomes have shown a significant reduction in the overall symptoms and the patients reported significant decrease of both Depression and Anxiety. Clinical significance outcomes are similar or higher than those available in scientific literature. The analysis showed that the unwanted effects had been amenable to extra-therapy factors.

CONCLUSION: These outcomes support the effectiveness of this multi-component group intervention. Symptoms of Anxiety and Depression can be modulated and reduced by learning self-management and self-regulation skills. This short-term training offers a cost-effective tool in treating the most common and co-occurrent psychiatric disorders claimed in public health settings.

Introduction

Anxiety and Mood Disorders are among the prevalent psychiatric conditions (Mathers & Loncar 2006) and the pharmacological therapy is highly common in the treatment of these disorders (Hollingworth et al 2010). However, the psychopharmacological approach has been noted to have a variable set of outcomes and particularly: the depressive symptoms show a partial reduction high around 50% (Pigott et al 2010) and the anxiety symptoms frequently show only a partial response either (Dell’Osso et al 2010). Given the prevalence of Anxiety and Depression and the noticed significant degree of partial or no response, the psy-
chological interventions are often integrated to pharma-
cological therapy in the treatment of these conditions.
Many psychological intervention for Depression or 
Anxiety, such as CBT are well tested and evidence-based 
(Cuijpers et al 2013; Deacon & Abramovitz 2004).

In addition, the co-occurrence of Depression and 
Anxiety in clinical settings is the rule rather than the 
exception (Kessler et al 2005), following the existing 
high rates of comorbidity (Kaufman & Charney 2000; 
Kessler et al 1994; Lecrubier 1998a, 1998b); there are 
evidences that commonly patients with a main diag-

nosis of Anxiety Disorder also meet criteria for at least 
one additional Anxiety or Mood Diagnosis (DiNardo 
& Barlow 1990; Kessler et al 2010); the most recur-
cent comorbidity is with a Major Depressive Disorder 
(MDD), and 50 to 60% of the patients with a MDD 
diagnosis report a lifetime history of Anxiety Disorder 
(Kaufman & Charney 2000).

Ormel et al (1994) had investigated the form and 
the frequency of psychiatric disorders in primary care 
patients spread around 14 different countries, high-
lifting a rate of about 45% of patients with a current 
Anxiety disorder and a comorbid Depressive disorder; 
whereas the rate of patients with a Depressive disorder's 
diagnosis and a comorbid current Anxiety disorder was 
about 40%. Furthermore, the co-occurrence of Depres-
sion and Anxiety is higher than among the Anxiety Dis-
orders different diagnosis themselves.

The clinical effects of such a high comorbidity are of 
an extensive nature: beside the evidence that patients 
with comorbid psychiatric disorders show a greater 
symptom severity and are expected of a chronic course 
of illness (Weisberg et al 2012), Kaufman & Charney 
(2000) and Kamaradova et al (2014) highlighted that 
comorbid Anxiety-Depression patients are less likely to 
respond to the pharmacological therapy; and Andrews 
et al (2002) show that the same comorbidity is asso-
ciated with increased distress, disability and mental 
health service utilization.

Given all those reasons (rates of comorbidity; par-
tial or no-response; complex clinical concerns), there 
is a body of evidence in favor of the efficacy and effec-
tiveness of targeting the comorbidity in psychological 
treatment instead of the main diagnosis first.

Although the efficacy of diagnosis-specific anxi-
tety treatments is very well established Norton & Price 
2007), Tyrer et al (1988) showed that identical phar-
macological and Cognitive Behavioral Therapies did 
not differently impact patients with varied Anxiety 
Disorder diagnosis. Subsequently, several researchers 
(Moses & Barlow 2006; Norton 2006; 2008) suggest 
that anxiety disorders either share a common underly-
ing factor or are superficially different manifestations 
of the same pathology. Out of this conceptualization 
a trans-diagnostic, broad-spectrum intervention has 
been designed to tailor treatment to the alleged core 
pathology underlying Anxiety disorder (Barlow et al 
2004; Erickson et al 2007; Norton & Philipp 2008) that 
has shown to be effective even for comorbid Anxiety- 
Depression disorders. In order to compare the efficacy 
of a trans-diagnostic CBT intervention for anxiety and 
depression to similar published efficacy trials, McEvoy 
& Nathan (2007) defined a benchmark: in a sample of 
143, with 30 Anxiety disorders, 38 Depressive disorders 
and 75 comorbid Anxiety-Depression disorders, the 
clinically significant change indices were highly com-
parable to those obtained in methodologically similar 
diagnosis-specific treatment studies.

Regardless of trans-diagnostic intervention, several 
studies have indicated that even a specific-diagnosis 
psychological intervention (e.g. Generalized Anxiety 
Disorder – GAD) has its outcome in a significant reduc-
tion in comorbid conditions (i.e., Borkovec et al 1995). 
Overall, outcomes from studies of mixed-diagnosis 
groups have been encouraging (Erickson 2003; Norton 
& Hope 2005).

Finally it should be emphasized that treat broad 
diagnostic areas within which are placed different diag-
noses can be notable because there is not always diag-
nostic agreement at a given time and the diagnosis may 
evolve over time.

At least two explanations are possible for why treat-
ment of a main disorder might lead to the elimination 
of comorbid conditions: a) treatment generalization 
may occur because of client application of coping skills 
learned in therapy to other problems not specifically 
targeted by the interventions; and b) anxiety and mood 
disorders share certain overlapping features (restless-
ness, irritability, asthenia, attention deficit, sleep disor-
ders, muscle tension, pain) in diagnostic criteria; thus, 
 improvement on those features in the principal disor-
der would necessarily have an impact on determina-
tions of the presence or severity of criterial symptoms 
for comorbid conditions (Brown & Barlow 1992).

A third explanation implicit in the above rationales 
may underlay both. Different psychological processes 
may be basic to many or most of the emotional disor-
ders. If this is the case, then most of the anxiety and 
mood’s complains share at a fundamental level the same 
underlying psychological mechanism (or mechanisms). 
Treatments that affect basic mechanism, would impact 
on any disorder sharing that mechanism (Brown & Barlow 1994; Sanderson & Barlow 1990).

It should also highlighted that several potential 
benefits account for requiring on one program only 
compared to numerous disorder-specific programs: the 
patients with different disorders may be treated with 
the same program thus reducing waiting list, and the 
comorbid patients may concurrently learn to manage 
multiple disorders.

Furthermore, the implementation of psychological 
treatments in publically funded healthcare systems 
has usually very specific economic ties. As possible 
drawback, the prevalence of one to-one intervention 
rather than group intervention in public service and 
the related economic impact of such an intensive treat-
ments (Gunter & Whittal 2010) may prove restrictive in terms of offering any adjunct psychological intervention for the partial responder patients. Although the evidence in support of CBT as an empirically based treatment is strong, trained therapists are in short supply and the organization of treatments in many Psychiatric Units remains at best ad hoc (Richards & Broglin 2011).

Otherwise, there is a range of treatments overcom-ing some of the drawback of above and these treatments can stand as possible complementary interventions in mental health settings. For example, the use of Relaxation-based approaches has grown, as these approaches can easily be applied in group settings which may prove to be cost-effective (Borkovec & Costello 1993; Jorm et al 2008); in many case, the focus is based on teaching a specific relaxation technique (e.g., Progressive Relaxation – PR). A meta-analysis (Jorm et al 2008) revealed that in the treatment of depressive patients the most common relaxation techniques (such as PR, imagery, Autogenic Training, etc.) are more effective than none or minimal treatment; however, they were not as effective as psychological treatment, and data on clinician-rated depressive symptoms were less conclusive.

As highlighted by Jacobson & Truax (1991) in order to evaluate the effectiveness of clinical researches in naturalistic settings it is important to take into account the clinical significance of the outcomes. Clinical significance analysis gives the researchers accurate information about the patients’ response to the treatment: which and how many subjects improve, recover, don’t change or even worsen. Deteriorated meaning a patient’s scale score had reliably moved in a negative direction during the course of therapy as judged by the Reliable Change Index (RCI) value; No change meaning a patient’s scale score had not changed reliably in any direction over the course of therapy; Improved meaning a patient’s scale score had reliably changed in a positive direction over the course of therapy as judged by the RCI value; and Recovered meaning a patient’s scale score had improved reliably as judged by the RCI, as well as having moved from within the range of the dysfunctional distribution to within the range of the functional distribution.

In this point of view, in a study on the effectiveness of a CBT group intervention in a population of 143 heterogeneous groups McEvoy & Nathan (2007) have found 5% deteriored, 9% unchanged, 59% improved, 27% recovered on the BDI. Öst & Breitholtz (2000) in a study comparing CBT (N=18) and Applied Relaxation (N=15) as group treatments for GAD have found respectively: 56% vs 53% Improved on the HAM-A, and 67% vs 53% Improved on the Severity Rating scale. Bright & Baker (1999) have compared CBT (N=26) and Mutual Support Intervention (N=28) as group treatments for a population of depressed patients and the outcome on the BDI was respectively 3.8% Deteriorated patients, 26.9% Unchanged, 69.2% Improved vs 3.6% Deteriorated, 39.3% Unchanged, 57.1% Improved.

In the field of one-to-one psychotherapy (Hansen et al 2002) the gathered outcomes of several Clinics on the Outcome Questionnaire (OQ-45) have shown: 8.2% Deteriored (496 patients), 56.8% Unchanged (3.448 patients), 20.9% Improved (1.272 patients), 14.1% Recovered (865 patients).

Psychotherapy is not free of side effects or unwanted effects (Linden & Schermuly-Haupt 2014) but only few study have been focused on this feature of the clinical practice. Lieberman et al (1973) and Lunnen & Ogles (1998) reported a deterioration rate of 10% among clients. In their re-analysis of the National Institute of Mental Health Collaborative Depression Study, Ogles et al (1995) found that from 2% to 13% (M = 6%) of participants worsened. In a population of outpatients, Strupp et al (1969) found that Deteriorated patients were not more significantly disturbed at the beginning of the therapy than patients who subsequently had more positive outcomes. The same was true in the study of Lunnen & Ogles (1998). Of course, the finding that some patient report an increase in symptoms while in treatment it is not a sufficient indicator that the deterioration was cause by the treatment; however how Lambert & Bergin (1994) write: “The study of negative change has important implications for the selection of clients for treatment, the suitability of specific procedures for some clients, and the selection, training, and monitoring of therapists” (p. 176). In the same study is stated that it is psychotherapists’ responsibility “to be sensitive to both the positive and negative effects of therapy and base our treatment efforts on a broad empirical foundation” (p. 182). Compliance with this duty is impossible without further investigations into the nature, extent, and consequences of these negative effects.

In the light of the foregoing the aim of our study was a) to evaluate the clinical and statistical significance of a short-term Cognitive-Behavioral Group Treatment for comorbid anxious-depressive outpatients who were partially responsive to drug treatment, b) to evaluate the Deteriorated patients and what variables contributed to the outcome of the clinical deterioration, and c) to test the feasibility of this intervention as complementory treatment for a psychiatric setting.

**Material and methods**

**Participants**

A sample of 33 patients (9 males; 24 females) were consecutively referred to a psychiatric unit in an University Hospital in Milan, Italy.

The patients were all resident in Milan area and had a mean age of 49.50 (±12.8; range = 19.9–69.4); males 50.1 (±12.3; range = 37.0–69.4); female 49.3 (±13.2; range = 19.9–68.11.

The total sample had two subgroups: a first subgroup with main diagnosis of Anxiety disorder (N=13), mean age of 49.3 (±13.3; range = 19.9–68.2); male 48.0
Inclusion criteria
Age between 18 and 65; established diagnosis of Anxiety and Depression comorbidity, or Depression-Anxiety comorbidity, signed informed consent and partial response to pharmacological treatment (following the guidelines). All patients have undergone multi-component group treatment while taking SSRI or SNRI therapy. Patients were treated with conventional doses of antidepressant medication, mainly with which they were recommended to the treatment and there were no major changes in the pharmacotherapy. All patients completed the program.

Exclusion criteria
Axis II (APA 2000) comorbidities, drug addiction, schizophrenia and/or medical condition.

Standardized measures included:
Symptom Checklist 90 R (SCL-90 R; Derogatis 1992): a 90 items self-report instrument evaluating a range of symptoms of psychopathology. It assesses nine symptom dimensions: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. The sum of the 90 items produces the Global Severity Index (GSI), a measure of overall psychological distress. The internal reliability (Cronbach α) of the scales range from 0.74 for hostility to 0.97 for the GSI (Prinz et al 2013). However, factor analytic studies of the Italian version have suggested that the GSI is an optimal measure for the assessment of distress symptoms (Prunas et al 2012).

Beck Depression Inventory (BDI; Beck et al 1961): a 21 items self-report rating inventory that assesses the clinical symptoms of depression through asking about feelings over the past week. The score is a sum of the positive answers, ranging from 0 to 63, and scores of 10 or greater reflects the presence of some level of depression. The internal reliability (Cronbach α) of the scale is between 0.73 and 0.92, and a concurrent validity between 0.55 and 0.73 for non-psychiatric subjects (Beck et al 1988).

Hamilton Depression Rating Scale (HAMD; Hamilton 1960) is a 21-item clinician-administered questionnaire used to indicate depression and evaluate recovery in adults. Scores of 8 or higher indicate depression, and a non-clinical Italian sample has been found to have a mean of 3.5 (Scimeca et al 2014). The scale has an internal reliability of between 0.46 and 0.97 (Bagby et al 2004).

Hamilton Anxiety Rating Scale (HAMA; Hamilton, 1960) is a 14-item clinician-administered questionnaire to indicate adult anxiety and recovery. Scores of 8 or higher indicate anxiety (Bjelland et al 2002), and a non-clinical Italian sample has been found to have a mean of 3.6 (Scimeca et al 2014). The scale has an internal reliability of between .74 and .96 (Bruss et al 1994).

Self-rating Anxiety Scale (SAS; Zung 1971): a 20 items self-report scale that assesses the complaints (primarily somatic symptoms) associated with anxiety symptoms. The respondent indicates how often he or she has experienced each symptom on a 4-point Likert scale consisting of “none or a little of the time” (coded as 1), “some of the time” (coded as 2), “good part of the time” (coded as 3), and “most or all of the time” (coded as 4). The raw total score range is 0–80. Zung (1971; 1974) proposed mean z-scores for diagnostic categories (Anxiety Disorders = 58.7; Depression = 50.7) and healthy controls (33.8). In a clinical sample the test-retest reliability range between .81 and .84 over a period of 1 to 16 weeks (Olatunji et al 2006).

Intervention
The program was modeled after, but not affiliated with, the clinical programs of the Benson-Henry Institute for Mind Body Medicine at the Massachusetts General Hospital (Benson 1975; 1993). The training was designed to provide tools for symptom management in outpatients. In the program, patients were taught a variety of techniques aimed at helping them with their psychological symptoms and as a self-regulatory integrated approach to stress reduction and emotion management including: psychoeducation on different topics, from stress to life-style well being; relaxation techniques (Relaxation Response-RR); mindfulness and meditative techniques; cognitive restructuring techniques. The training was...
designed to be delivered in 8 sessions of two hours weekly (with a 10 min break in the middle) in a group format, plus one-hour intake assessment individual session and a one-hour post-treatment assessment individual session. Each session was run by two co-therapists: a psychologist and a physician specializing in psychiatry. During Session 1, the participants were taught about the concepts of stress, coping, and the role of breathing in helping reduce stress. After the break, there was a focus on diaphragmatic breathing, and a debriefing about the content of the session. In Session 2, there was a focus on the psychophysiology of stress and relaxation, followed by an introduction to a number of relaxation exercises, and a debriefing about the content of the session. In Session 3, there was an introduction to the psychophysiology of emotions, followed by instruction and training in a mindfulness exercise, and a debriefing about the content of the session. In Session 4, there were life-style and physical activity assessment, followed by the introduction of a meditation exercise, and a debriefing about the content of the session. In Session 5, there were lessons on life style and nutrition, followed by a contemplation exercise, and a debriefing about the content of the session. Session 6 included a stress and cognitive structuring exercises, followed by further instruction and practice of relaxation exercises, and a debriefing about the content of the session. Session 7 focused on resilience and protective factors related to anxiety and depression, followed by a relaxation exercise, and a debriefing about the content of the session. Finally, Session 8 dealt with resources about relapse prevention and further relaxation exercises.

Procedure
On referral to the Unit the patients were all given information on the program and the current study, been asked to sign the informed consent in accordance with the Ethical hosting Hospital Policy and Approval. During the intake assessment session, the patients were all given a battery of psychological tests, including the SCL-90 R, BDI, HAM-A, HAM-D, and SAS. Patients then participated in the eight-week multi-component program, as detailed above, receiving one 2-hour group-based session a week for 8 weeks. Following completion of the intervention, the patients were again asked to complete the tests during the final assessment session and had been debriefed regarding the study. A three-months follow up data-gathering is currently on going.

Statistical analysis
All statistical analyses were performed with the software OriginPro 8 SR0. The statistics test for dependent data was Wilcoxon Signed Rank Test and Bonferroni adjustment, when appropriate. To compare the two subgroups (Anxiety and Depression) was used the Mann-Whitney test. Effect sizes (d; Cohen 1988) following Richard & Borglin formula (2011) with a conservative result. Analyses of clinically significant change were conducted according to Jacobson & Truax (1991). This method evaluates two criteria for each participant. The first criterion or index (Reliable Change Index, RCI) is whether each participant’s score improves such that it is unlikely to be due to the inherent unreliability of the measure. A participant is considered to have experienced reliable change if his or her RCI is greater than 1.96 (Jacobson et al 1999). By this procedure, we could also assess Deteriorated patients. The second criterion (Clinical Significance Index, CSI) evaluated, in those patients with a reliable change, whether their post-treatment symptom level sets within the “normal” range for this measure. Exactly:

**BDI:** RCI has been assessed. We also compute the CSI on the reliable data (cut-off score in BDI=15; Gibbons et al 2010). Because clinically significant change requires an above-cut-off individual-score at pre-treatment and a below-cut-off individual-score at post-treatment, (according to Gibbons et al 2010), we could only include in this analysis those patients who had a BDI score ≥ 15 at pre-treatment.

**SAS:** RCI in SAS has been computed following the same procedure. Differently, in calculating CSI, we’ve got different SDs (Standard Deviation) for males and females because of the statistical significant differences in the validation study’s normative data (Olatunji et al 2006).

Two different cut-off for males and females have been computed following the Wise formula (2004): males ≤34.45; females ≤38.12.

**SCL-90 R:** Following Wise (2004), RCI in SCL-90 R had been computed on the GSI data (Global Severity Index); in this case, CSI cut-off ≤0.93 (Wise 2004).

**HAM-D:** RCI has been computed following Bagby et al (2004); CSI cut-off ≤7 (Zimmerman et al 2004); none of the patients was ≤7 at pretest.

**HAM-A:** RCI has been computed following Shear et al (2011). CSI cut-off ≤7 (Zimmerman et al 2004) none of the patients had been assessed ≤7 at pre-test.

**Results**
Table 1 shows the means and standard deviations for overall symptoms (SCL-90 R), depression and anxiety scores for the overall sample pre and post treatment, as well as percentage of improvement (pre vs post), Wilcoxon Signed Ranks Test z-scores with Bonferroni’s adjustment (except for BDI and SCL-90 R) with related statistical significance, and the effect size. For the total sample all the scales show significant statistical differences in pre-post data.

Table 2 shows means and standard deviations for overall symptoms (SCL-90 R), depression (BDI and HAMD), and anxiety (SAS and HAMD) for the anxious and depressed subgroups pre and post treatment, as well as Wilcoxon Signed Ranks Test (subgroup pre vs post).
No detectable significant difference between the two diagnostic subgroups, Anxiety and Depression, on each scale, both the pretest and post-test.

Table 3 shows instruments (total sample N=33; BDI N=17 because only patients with BDI initial score ≥15 were included in the analysis), clinical significance levels with number of subjects and respective percentage. Percentage was setup following these criteria: for Improved patients on the total sample; for the Recovered patients on the number of Improved only.

Table 4 shows Scales and Clinical significance levels (number of subjects and percentage) in each subgroup (Anxiety and Depression).

**Discussion**

The results demonstrated that the treatment had good patient acceptability, with none of the cohort dropping out of the treatment program.

For the total sample there was a reduction in overall levels of symptoms measured by the SCL-90 R, and patients showed improvement in their depression and anxiety. The effect sizes was large for HAMA, HAMD and SCL-90 R; medium for BDI and SAS.

It was not found significant statistical difference between the two diagnostic subgroups: Anxiety and Depression. Taking into account that negative affectivity and psychological and biological vulnerabilities are shared by anxiety and affective disorders (Clark & Watson 1991), then treatments addressing commonalities could be more efficient and effective. The outcomes of this study support the hypothesis that the intervention addressed common transdiagnostic factors of the two patients’ subgroups.

Clinical significance outcomes for the total sample are similar or higher than those available in scientific literature, especially on SCL-90-R, HAMD and HAMA.

Clinical significance appears to be of a greater value for the subgroup of depressed patients, even though it is of notable effects for anxious patients too. The reasons for this pattern of results require further exploration, but may include the social support offered to individuals in group sessions, which is known to help alleviate depressive symptoms (Cohen & Wills 1985).

Outcomes are different on each given scale of the study because scale’s specific contents are often not overlapping and different measures of different domains will produce different RCI classification results (Beckstead et al. 2003). Furthermore, no all scales have the same reliability, affecting the RCI on that scale: the less reliable the instrument, the greater the difference required to achieve a statistically reliable change (Wise 2004).

Deteriorated patients’ total number was small: nevertheless, the qualitative analysis showed that unwanted effects had been amenable to extra-therapy factors (marital, familiar or job conflicts emerged during the treatment).

**Table 1.** Mean (standard deviations) for overall symptoms (SCL-90 R), depression (BDI and HAMD), and anxiety (SAS and HAMD) for the sample pre and post treatment, as well as percentage of improvement (pre vs post), Wilcoxon Signed Ranks Test with Bonferroni’s adjustment (except for BDI and R-90 R Overall), and the effect size (d).

<table>
<thead>
<tr>
<th>Scale</th>
<th>Pre</th>
<th>Post</th>
<th>% improv.</th>
<th>Wilcoxon z</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCL-90 R Overall</td>
<td>93.15</td>
<td>60.94</td>
<td>34.58</td>
<td>4.30***</td>
<td>0.9</td>
</tr>
<tr>
<td>Depression (BDI)</td>
<td>14.48</td>
<td>11.42</td>
<td>21.13</td>
<td>2.69***</td>
<td>0.4</td>
</tr>
<tr>
<td>Depression (Hamilton)</td>
<td>18.91</td>
<td>12.61</td>
<td>33.31</td>
<td>4.86***</td>
<td>1.22</td>
</tr>
<tr>
<td>Anxiety (SAS)</td>
<td>40.60</td>
<td>37.07</td>
<td>6.69</td>
<td>2.90**</td>
<td>0.5</td>
</tr>
<tr>
<td>Anxiety (Hamilton)</td>
<td>17.48</td>
<td>11.48</td>
<td>34.32</td>
<td>4.21***</td>
<td>1.18</td>
</tr>
</tbody>
</table>

**p<0.01; ***p<0.001**

**Table 2.** Mean (standard deviations) for overall symptoms (SCL-90 R), depression (BDI and HAMD), and anxiety (SAS and HAMD) for the anxious and depressed subgroups pre and post treatment, as well as Wilcoxon Signed Ranks Test (sub group pre vs post) and effect size (d).

<table>
<thead>
<tr>
<th></th>
<th>Anxiety sub group</th>
<th>Depression sub group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>SCL-90 R Overall</td>
<td>90.25</td>
<td>53.00</td>
</tr>
<tr>
<td>Depression (BDI)</td>
<td>14.95</td>
<td>13.35</td>
</tr>
<tr>
<td>Depression (Hamilton)</td>
<td>18.75</td>
<td>12.20</td>
</tr>
<tr>
<td>Anxiety (SAS)</td>
<td>40.82</td>
<td>37.06</td>
</tr>
<tr>
<td>Anxiety (Hamilton)</td>
<td>17.05</td>
<td>10.20</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001
There can be little doubt that traditional RCI recovery rates are extremely conservative psychotherapy outcome measures and that the scores shifted into the functional range stand for “unequivocally treatment (...) success” (Jacobson et al. 1984; p. 498).

In summary, the clinical effect of this group treatment can then be evaluated in positive terms. The multi-component program was further successful with those patients who previously shown little improvement with pharmacological intervention. Positive outcomes are unlikely to be effected by the pharmacological treatments, because the patients have been under the same drug treatment dosage three months previously and during the whole group treatment time. That the training was successful with patients who had previously demonstrated little change in their symptomaticatology through the use of pharmacological interventions is encouraging, and adds to the number of psychological supports that may be considered for this patient group.

These outcomes support the effectiveness of this brief multi-component intervention. Symptoms of Anxiety and Depression can be modulated and reduced by learning self-management and self-regulation skills. This short-term training offers a cost-effective tool in treating the most common and co-occurrent psychiatric disorders claimed in public health settings.

**Study limitation**

There are some limitations to the current study that need to be noted. The first limitation is the lack of a control group. However, the fact that patients had no shown improvement before their involvement in the program, suggests that it might be useful to integrate it to the pharmacological approach. Also reassuring is the fact that much evidence (Butler et al. 2006) indicate the superiority of CBT treatment compared to placebo or waiting-list. However, this study was observational in nature and the gathering of a data group control is a future research goal. The data gathering is still ongoing, so that the longitudinal effectiveness outcomes are going to be available.

Other feature to highlight is that clinician-rated scales’ outcomes are higher than self-report outcomes: in the area of depressive disorder the agreement between self-reported and clinician-rated measures of depression severity is far from perfect, even though there is a correlation rated from moderate to strong between clinician-rated scales and self-reported questionnaires (Cameron et al. 2011; Cuijpers et al. 2010; Domken et al. 1994). Uher et al. (2012) highlighted that self-report and clinician-rated outcomes are not equivalent, each of the two providing unique information that is relevant to clinical analysis. The most accurate prediction of outcome can be achieved when both, clinician and self-rating assessments, are available. It could be assumed that this is the case for the Anxiety Disorders as well (Sartorius et al. 1990).

Finally the sample size when patients are split into two diagnostic classes is small, and so the results should be interpreted with caution.

**Tab. 3. Scale (sample size) and clinical significance levels (number of participants and percentage).**

<table>
<thead>
<tr>
<th>Scale (sample size) and clinical significance levels</th>
<th>Deteriorated</th>
<th>No Change</th>
<th>Improved*</th>
<th>Recovered**</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCL-90 R (N=33)</td>
<td>3 (9.09%)</td>
<td>6 (18.18%)</td>
<td>24 (72.73%)</td>
<td>22 (91.67%)</td>
</tr>
<tr>
<td>HAMD (N=33)</td>
<td>1 (3.03%)</td>
<td>11 (33.33%)</td>
<td>21 (63.64%)</td>
<td>4 (19.08%)</td>
</tr>
<tr>
<td>BDI (N=17)</td>
<td>2 (11.76%)</td>
<td>6 (35.29%)</td>
<td>9 (52.94%)</td>
<td>8 (88.89%)</td>
</tr>
<tr>
<td>HAMA (N=33)</td>
<td>2 (6.06%)</td>
<td>13 (39.39%)</td>
<td>18 (54.54%)</td>
<td>8 (44.44%)</td>
</tr>
<tr>
<td>SAS (N=33)</td>
<td>2 (6.06%)</td>
<td>9 (66.67%)</td>
<td>4 (27.27%)</td>
<td>8 (88.89%)</td>
</tr>
</tbody>
</table>

* Percentage was setup on the total sample
** Percentage was setup on the number of Improved only

**Tab. 4. Scale and clinical significance levels (number of participants and percentage) in each subgroup (Anxiety and Depression).**

<table>
<thead>
<tr>
<th>Depression sub group (N=20)</th>
<th>Anxiety sub group (N=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deterior.</strong></td>
<td><strong>Unchang.</strong></td>
</tr>
<tr>
<td><strong>Deterior.</strong></td>
<td><strong>Unchang.</strong></td>
</tr>
<tr>
<td>SCL-90 R</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>HAMD</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>BDI *</td>
<td>2 (18.2%)</td>
</tr>
<tr>
<td>HAMA</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>SAS</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

*BDI Depression sub group N=11; BDI Anxiety sub group N=6; because only participants who began treatment with a BDI score of 15 or above were included in this analysis.
REFERENCES

Effectiveness for comorbid disorders


57 NICE clinical guideline 113 (2011). Generalised anxiety disorder and panic disorder (with or without agoraphobia) in adults. www.nice.org.uk/cg113


