Brief report

Components of self-esteem in affective patients and non-psychiatric controls

Alessandro Serretti*, Paolo Olgiati, Cristina Colombo

Department of Psychiatry, Istituto Scientifico H San Raffaele, Vita-Salute University, Via Stamira D’Ancona 20, 20127 Milano, Italy

Received 22 October 2004; received in revised form 18 May 2005; accepted 19 May 2005

Abstract

Decrease in self-esteem (SE) is found in all mood disorders during inter-episode phases. This trait was associated with relapse and suicidality but its genetic basis is still undefined, probably because SE has multiple components. The aim of the current study was to ascertain which of those components were altered in a sample of affective patients.

Three hundred and thirty-one outpatients with bipolar ($N=199$) and major depressive MD ($N=132$) disorders in remission for at least three months and one hundred controls completed the Rosenberg Self-esteem Scale (RSE; [Rosenberg, M., 1965. The measurement of self-esteem, Society and the Adolescent Self-Image. Princeton University Press, pp.16–36]). Principal component analysis was performed to identify RSE factor structure. Extracted factors were compared across case and control groups in the whole sample ($N=431$) and in a sub-sample ($N=301$) with low self-esteem (RSE $<20$).

PCA yielded a two-factor solution with self-confidence (SC) and self-deprecation (SD) that was largely consistent with the existing literature. Such factors were both associated with lower scores in affective patients than controls (SC: $F=52$, $p<0.01$; SD: $F=43$, $p<0.01$). However in the low RSE group only self-confidence was found to be decreased in subjects with mood disorders (SC: $F=13.8$, $p<0.01$; SD: $F=0.05$, $p=0.9$).

These findings suggest that self-esteem deficit in affective disorders might involve specific components. Implications for research and clinical practice are discussed.

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Keywords: Bipolar disorders; Major depression; Self-esteem; Factor analysis

1. Introduction

Decrease in self-esteem is traditionally considered a key feature of depressive syndromes. Contrasting with this view the recent literature demonstrates that low levels of self-esteem are not rare in bipolar disorders during hypomanic episodes (Scott and Pope, 2003) and very common in all mood disorders during inter-episode phases (Blairy et al., 2004; Serretti et al., 1999; Shapira et al., 1999). Such findings point to self-esteem deficit (SED) being a stable trait of affective illness which might influence clinical course and
outcome. This hypothesis is supported by recent studies (Johnson et al., 2000; Daskalopoulou et al., 2002), while previous works yielded negative results (Roy, 1990; Staner et al., 1997).

The genetic basis of SED has not yet been clarified and findings reported in literature are largely inconsistent (Roy et al., 1995; Serretti et al., 1998). A possible explanation for this lies in the complex phenomenology of self-esteem, assessed by different instruments, each with multiple domains (Kaplan and Pokorny, 1969; Owens, 1994; Brems and Lloyd, 1995).

The present paper improved the knowledge of SED by investigating self-esteem components specifically altered in remitted bipolar and major depressive subjects compared with a non-psychiatric group. This preliminary analysis may also help in identifying targets for genetic research on mood disorders.

2. Method

2.1. Sample

Three hundred and thirty-one patients with a DSM-IV diagnosis of bipolar (N=199) or major depressive (N=132) disorder in remission for at least three months were compared with one hundred non-psychiatric controls randomly selected among internal medicine and surgery inmates. Two hundred and eighty-five subjects (BP=99; MDD =86; controls= 100) were already published (Serretti et al., 1999): on them the analysis was performed on total RSE score. In the current paper we present one hundred and forty-six subjects that have never been reported and RSE factorialization. Informed consent was obtained from all participants. Cases were recruited among patients consecutively admitted to the Mood Disorder Center (MDC) of the Vita-Salute University-H San Raffaele Institute in Milan.

Any concomitant axis I disorder, mental retardation and organic disease impairing psychiatric evaluation were exclusion criteria.

Remission was defined as no mood disorder episode (DSM IV) for three months or longer and all of the following characteristics: (I) HAM-D score ≤7 (see below), (II) no clinical evidence of hypomania or mania, (III) no psychotic manifestations, and (IV) return to psychosocial function prior to the last episode. All patients were on maintenance treatment: lithium (plasma levels range 0.4–1.0 mEq/l) and/or selective serotonin reuptake inhibitors (100–200 mg daily of fluvoxamine or equivalents). Subjects belonging to the control group were investigated for their own and first-degree relatives’ mental disorders using SCID non-patient version (Spitzer et al., 1990).

2.2. Assessment procedure

Cross-sectional assessment was performed by trained psychiatrists on the basis of the Structured Clinical Interview for DSM-IV Axis I Disorders- Patient Edition (SCID-I/P, Version 2.0) (First et al., 1995). Data on prior course of mood disorder were obtained from non-standardized interviews with a procedure similar to the NIMH-Life-Chart method (Roy-Byrne et al., 1985; Denicoff et al., 2000). All available materials (GP letters, medical records etc) were reviewed and summarized by trained raters. Ad hoc protocols were created to investigate the onset, duration and clinical features of affective episodes, treatment received, psychosocial functioning during inter-critical phases, comorbid personality disorders (according to DSM-IV) and physical illnesses (Leckman et al., 1982).

Individual level of self-esteem was measured by the Rosenberg Self-Esteem Scale (RSE, Rosenberg, 1965). The RSE consists of 10 statements dealing with a person’s general beliefs about himself. Each item is answered on a four-point scale—from strongly agree (3) to strongly disagree (0). Five items are reverse scored—from strongly disagree (3) to strongly agree (0)—so that in each case scores go from less to more self-esteem. The scale, originally validated in a large sample of high school students (RSE, Rosenberg, 1965) and thereafter used in non-psychiatric and psychiatric adults (Blascovich and Tomaka, 1993), has high reliability: test–retest correlations are typically in the range of 0.82 to 0.88 and Cronbach’s alpha for various samples are in the range of 0.77 to 0.88 (Blascovich and Tomaka, 1993). Depressive symptomatology was evaluated using the 21-item Hamilton Rating Scale for Depression (HAM-D-21).

2.3. Statistical analyses

The study was a cross-sectional analysis of three groups with bipolar, unipolar and non-psychiatric sub-
jects, respectively. Demographic and clinical variables were compared by means of chi-square test, Student’s t-test and one-way ANOVA as appropriate. Given the large number of comparisons, a conservative 0.01 alpha level was chosen. RSE factor structure was investigated by performing a principal component analysis (PCA) with varimax rotation. Extracted factors were compared between case and control groups in the whole sample and in subjects with RSE score <20 using ANCOVA (alpha=0.05), with age and gender as covariates.

3. Results

Patients had been in remission for 3.97 ± 3.46 months. At the time of self-esteem evaluation their HAM-D score was 2.47 ± 2.35; psychic anxiety factor (items 9 and 10) was 1.08 ± 1.49; and somatic anxiety factor (items 11, 12, and 13) was 1.22 ± 1.56 (Serretti et al., 2000).

The characteristics of comparison groups are displayed in Table 1. Significant differences emerged with respect to gender (p<0.001) and age (p=0.01). In comparison with major depressives, bipolar subjects had an earlier illness onset (p<0.001), more recurrence of episodes (p=0.0013) and a non-significant trend towards the overrepresentation. Moreover personality disorders were asymmetrically distributed between the bipolar and unipolar groups (p=0.016) although such a difference did not reach significance. In particular DSM-IV anxious cluster was more represented among major depressive patients.

PCA yielded a two-factor solution accounting for 58% of total variance. Extracted factors were self-confidence, including all positively worded items (1, 3, 4, 7, and 10), and self-deprecation, consisting of negatively worded items (2, 5, 6, 8, and 9—see Table 2).

In Table 3 we reported the analysis on the whole sample. Overall RSE and subscales lower scores—consistent with decreased self-esteem—were observed in affective patients compared to controls (p<0.001).

Table 1
Demographic and clinical characteristics of the sample (N=431)

<table>
<thead>
<tr>
<th></th>
<th>BPD (N=199)</th>
<th>MDD (N=132)</th>
<th>Controls (N=100)</th>
<th>Number of subjects</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (M/F)</td>
<td>87/112</td>
<td>33/99</td>
<td>58/42</td>
<td>431</td>
<td>X²=26.4, p&lt;0.001</td>
</tr>
<tr>
<td>Age</td>
<td>43.3 ± 13.7</td>
<td>47.8 ± 12.8</td>
<td>45.4 ± 12.7</td>
<td>431</td>
<td>F=4.61, p=0.01</td>
</tr>
<tr>
<td>Age of onset</td>
<td>28.8 ± 10.1</td>
<td>34.1 ± 13.7</td>
<td>–</td>
<td>328</td>
<td>t=3.79, p&lt;0.001</td>
</tr>
<tr>
<td>No. of episodes/year</td>
<td>0.73 ± 0.85</td>
<td>0.43 ± 0.43</td>
<td>–</td>
<td>258</td>
<td>t=3.73, p=0.0013</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>170</td>
<td>112</td>
<td>–</td>
<td>282</td>
<td>X²=10.3, p=0.016</td>
</tr>
</tbody>
</table>
Post-hoc analyses: a BPD vs controls: $p < 0.001$; b BPD vs MDD: $p < 0.001$; c MDD vs controls: $p < 0.001$; d BPD vs controls: $p < 0.001$; e MDD vs controls: $p < 0.001$.

Table 3
RSE scores in the whole sample ($N=431$) and the low self-esteem sub-sample ($N=301$)

<table>
<thead>
<tr>
<th></th>
<th>BPD ($N=199$)</th>
<th>MDD ($N=132$)</th>
<th>Controls ($N=100$)</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall SES</td>
<td>16.7 ± 4.1</td>
<td>16.1 ± 3.7</td>
<td>22.0 ± 4.1</td>
<td>$F=72.2,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p&lt;0.001^a$</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>9.5 ± 2.5</td>
<td>9.0 ± 2.4</td>
<td>12.0 ± 1.8</td>
<td>$F=50.8,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p&lt;0.001^b$</td>
</tr>
<tr>
<td>Self-deprecation</td>
<td>7.2 ± 2.5</td>
<td>7.1 ± 2.4</td>
<td>9.9 ± 3.1</td>
<td>$F=41.7,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p&lt;0.001^c$</td>
</tr>
</tbody>
</table>

Subjects with SES <20 ($N=301$)

<table>
<thead>
<tr>
<th></th>
<th>BPD ($N=157$)</th>
<th>MDD ($N=113$)</th>
<th>Controls ($N=31$)</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall SES</td>
<td>15.2 ± 2.9</td>
<td>15.1 ± 3.0</td>
<td>17.2 ± 1.6</td>
<td>$F=7.07,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p=0.001^d$</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>8.8 ± 2.2</td>
<td>8.6 ± 2.3</td>
<td>10.8 ± 1.4</td>
<td>$F=13.1,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p&lt;0.001^e$</td>
</tr>
<tr>
<td>Self-deprecation</td>
<td>6.4 ± 2.0</td>
<td>6.5 ± 2.1</td>
<td>6.4 ± 2.2</td>
<td>$F=0.07,$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$p=0.93$</td>
</tr>
</tbody>
</table>

Higher scores at the self-confidence and self-deprecation subscales indicate higher self-esteem. Age and gender are covariates. Significance level is set at alpha<0.05.

Conversely, in the low self-esteem sub-sample, individuals with mood disorders showed lower scores at the overall RSE ($p=0.001$) and self-confidence subscale ($p<0.001$), whereas the self-deprecation subscale did not statistically differ from controls ($p=0.93$).

4. Discussion

In line with the existing literature (Pardoen et al., 1993; Serretti et al., 1999; Shapira et al., 1999; Daskalopoulou et al., 2002), this study emphasizes the presence of self-esteem deficit in remitted affective patients. However it goes beyond previous works by analyzing self-esteem components. RSE factor structure has been investigated in several studies, most of which involving non-psychiatric subjects, and both unidimensional (Shapurian et al., 1987; Silber and Tippett, 1965) and two-factor (Kaplan and Pokorny, 1969; Miyamoto et al., 2001; Owens, 1993; Sheasby et al., 2000) models have been reported. A dual structure was also evidenced in our sample with predominant mood disorder patients and this suggests that RSE factorization is not influenced by psychiatric diagnosis.

Although bipolar and major depressive patients differed in most detected variables (including the prevalence rates of personality disorders), the two groups were identical in the RSE profile. This reinforces the hypothesis that decrease in self-esteem is a stable trait of affective illness with a possible pathogenic role that needs to be further investigated.

Self-esteem deficit was shown to have specific features in mood disorders. In fact, in the subgroup with low self-esteem, bipolar and major depressive subjects had lower self-confidence than controls but with similar degree of self-deprecation. This would denote that in affective patients self-esteem is decreased because of a cognitive bias primarily involving self-attribution of positive characteristics. Such results may have important implications for research as well as clinical practice.

Previously, we observed no association between self-esteem deficit and 5-HT transporter and D4 receptor genes (Serretti et al., 1998). Future research should also include the sub-dimension of self-confidence.

As low self-esteem has been associated with earlier relapse in seasonal affective disorder (McCarthy et al., 2002), higher risk for chronic course in major depression (Ezquiaga et al., 1999) and suicidality in bipolar disorders (Daskalopoulou et al., 2002), self-esteem might be a primary target for psychotherapy in affective disorders. Our study suggests that psychological interventions could specifically be targeted to support self-confidence in the context of a global psychotherapeutic treatment of mood disorders.

The present results, although clear, are only relative to RSE dimensions. Interestingly, in our center we observed that also other aspects of self-perception were impaired in remitted major depression (Cigala Fulgosi et al., 2003): these might represent the basis for future research on SED in affective illness.

Features of self-esteem are varying during the course of mood disorders as an effect of prodromal and residual symptomatology (Ormel et al., 2004), thus cross-sectional design and use of HAM-D, not...
much sensitive to detect partial residual symptoms (Blazer, 1997), are main caveats in the present study. Use of non-standardized interviews for clinical assessment and small size of control group are other important limitations.

Overall our findings demonstrate that self-esteem is decreased in bipolar and unipolar disorders even during inter-critical phases. Such a reduction is more pronounced in specific components.

References


