Double depression in adult psychiatric outpatients in Brazil: 
Distinct from major depression?

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Abstract

This study examines whether distinct symptom profiles, patterns of comorbidity, and suicidal symptoms uniquely characterize individuals diagnosed with double depression (DD) by comparing Brazilians with DD to those with major depressive disorder (MDD). One hundred forty two psychiatric outpatients (ages 20–77 mean =48.8, S.D. =13.2; DD, n =23; MDD, n =119) participated in structured diagnostic interviews and completed self-report measures of depressive symptoms, suicidality, and family history of mental disorders. Patients with DD exhibited a more severe symptom profile than those with MDD, as evidenced by a higher number of depressive symptoms and more intense suicidal ideation. They also appeared to be qualitatively different from individuals with MDD, as evidenced by distinct comorbidity patterns, quality of life reports, and anhedonic features. These results may be important in understanding the phenomenology of DD in psychiatric outpatients by informing diagnostics, psychotherapy, and psychotherapeutic treatment of DD.

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1. Introduction

Relatively limited empirical attention has been given to the important nosological concept of double depression (DD; dysthymia with superimposed major depression; Keller and Shapiro, 1982). Two early studies compared patients with DD to those with major depression (MDD) alone (Miller et al., 1986; Klein et al., 1988). Both found that DD was associated with relatively more severe depressive symptoms than MDD. One of the studies found no additional differences between the groups (Miller et al.), whereas the other found that patients with DD had more antisocial personality disorder symptoms and higher rates of bipolar II and non-bipolar mood disorders in first-degree relatives (Klein et al.). Additionally, this study found that at 6-month follow-up, patients with DD were less likely to have recovered and more likely to have experienced a hypomaniac episode than those with MDD.

Subsequent studies have conformed to this general pattern, with most finding differences between individuals diagnosed with DD and MDD in regard to the
severity of depression (Klein et al., 1988; Leader and Klein, 1996; McCullough et al., 2000) and a family history of mood and personality disorders (Klein et al., 1995). Beekman et al. (2002) reported that in an elderly sample (55–85 years) patients with DD experienced fewer remissions and higher levels of symptoms than their counterparts who had been diagnosed with dysthymia, MDD, or subclinical depressive symptoms. Furthermore, Klein et al. (1988) found that suicide attempts were more common in people diagnosed with DD than in those with episodic depression. Kool et al. (2000) reported that people with DD were more likely than those with MDD alone to have a comorbid Axis II condition, while Levitt et al. (1991) reported that patients with DD were more likely than those with MDD to have a current anxiety disorder. Additionally, it has been reported that DD increases the amount of impairment seen in social functioning in family and work situations (Wells et al., 1992; Leader and Klein, 1996). Patients diagnosed with DD have also been shown to have poorer treatment outcomes (e.g., Klein et al., 1988).

However, some studies have produced contradictory results that indicate DD and MDD are not distinct entities. For example, Levitt et al. (1991) failed to find a significant difference in severity of depression and qualitative symptoms between people with MDD and those with DD. Additionally, Kool et al. (2000) found that patients suffering from MDD and DD did not differ in terms of symptom profiles. A study that examined a sample from Spain reported that patients with DD did not differ from those with MDD (Rowe and Rodie, 2002). Finally, when Dixon and Thyer (1998) examined male veterans, they found that Beck Depression Inventory and Symptom Checklist-90-Revised scores of those diagnosed with MDD did not significantly differ from those with DD.

One implication of previous work is that DD may not be qualitatively distinct from other forms of non-bipolar depression, although it may be a relatively severe form. If this hypothesis were true, one would expect people with DD to exhibit more signs of severe depression, such as melancholic or psychotic depression, than those with other mood disorders. Double depressed patients may also display increased signs of suicidality. Another possibility, however, is that there are important differences between those who develop DD and those who develop other forms of non-bipolar depression. Indeed, it would not be surprising if people who developed a major depressive episode in the presence of a long-lasting dysthymia were qualitatively different from people who developed a MDD alone. A final possibility is that people with DD and MDD do not differ systematically on any relevant variables, and therefore form a single nosological entity.

There are many features of DD that need to be further researched. For example, there is currently a paucity of information about the nature of DD in other cultures. Aside from the study of Rowe and Rodie (2002) of Spanish individuals, we are not aware of any previous research conducted on DD in non-U.S. samples. The current study seeks to examine a South American population to increase our knowledge of DD in non-U.S. samples. Additionally, there are few studies examining rates of Axis I comorbidity in people with DD versus those with MDD. The current study will additionally address this dearth of information.

The possibility that individuals who have been diagnosed with DD might experience more severe profiles was examined by comparing Brazilian adults with DD to those with MDD alone. In particular, we considered variables such as family history of mental illness, melancholic features, psychotic features, suicidality, Axis I comorbidity, quality of life, and level of symptomatology. The findings of this study may help to inform the phenomenology, diagnostics, and psychotherapeutics of DD.

2. Methods

2.1. Participants and procedures

Between March 2001 and May 2005, newly diagnosed depressed adult patients attending the outpatient mood disorders clinic of a university hospital in Porto Alegre, Brazil (N=142) were enrolled in the study (approved by the medical ethics committee of the Hospital de Clinicas de Porto Alegre). Participants included 119 women (84%) and 23 men (16%) who were an average of 48.8 years old (range 20–77 years, S.D. = 13.2). One hundred thirteen participants were Caucasian (79.6%), 19 were African-Brazilian (13.4%), and 10 were classified as of mixed ethnicity (7.0%). Eighty participants were married (56.3%), 40 were not married (28.2%), and 22 were widowed (15.5%). Regarding highest educational attainment, 78 (54.9%) participants stated that they had completed grammar school, 45 (31.7%) had completed high school, and 14 (9.9%) had completed college. Five participants had completed only minimal levels of schooling and were considered illiterate (3.5%).

Diagnostic interviews and testing were conducted by psychiatrists with at least 3 years of experience; all clinical activity was monitored by a senior psychiatrist.
To participate in the study, patients had to provide informed consent as well as present with a primary diagnosis of current major depression according to a Portuguese version (Amorim-Gaudencio, 2000) of the Mini International Neuropsychiatric Interview (Sheehan et al., 1998). Of the patients diagnosed with MDD, 23 also suffered from dysthymia and therefore were diagnosed with DD. The final sample included 119 people diagnosed with MDD and 23 with DD.

Regarding comorbidity, 60 (42.3%) patients had no comorbid diagnoses. Eighty-two (57.7%) patients were identified as having two or more diagnoses (i.e., a primary depressive disorder plus at least one other non-depressive diagnosis). Of these 82 patients, 48 (38.8%) had one other diagnosis, 21 (14.8%) had two other diagnoses, 10 (7%) had three other diagnoses, two (1.4%) had four other diagnoses, and one (0.7%) had five other diagnoses. The two most common comorbid diagnoses were generalized anxiety disorder and social phobia (these were assigned as comorbid diagnoses 45 and 22 times, respectively). See Table 1 for the complete list of comorbid diagnoses.

2.2. Measures

2.2.1. Mini International Neuropsychiatric Interview (MINI)

The MINI is a structured clinical interview based on the symptoms of the DSM-IV and ICD-10 for several psychiatric disorders [see Sheehan et al. (1998) and Amorim-Gaudencio (2000) for reliability and validity data]. The interview includes several questions about suicidality, from which the presence or absence of clinician-rated suicidality was determined. Clinicians’ finding of any suicidality was coded as “clinician-rated-suicidality-present”; otherwise, as “absent.” The MINI was also the data source for primary and comorbid diagnoses, as well as for the presence or absence of melancholic features, psychotic symptoms, and past history of depression.

2.2.2. Beck Depression Inventory (BDI)

The BDI (Beck et al., 1976) is a 21-item self-report scale on the cognitive and neurovegetative qualities of depression. The Portuguese version of the BDI was prepared according to recommended translation procedures, and its psychometric and validity characteristics are satisfactory (Gorenstein et al., 1999). The presence or absence of self-rated suicidality was determined from the BDI suicidality item; endorsement of suicidality was coded as “self-rated suicidality present” and non-endorsement as “absent.” The presence of hopelessness (a DSM-IV symptom of DD) was determined from item 2, while the presence of anhedonia (a DSM-IV symptom of MDD) was determined from item 4. Differential scores between the DD and MDD groups on BDI items 2 and 4 would be indicative of qualitative differences between these disorders, while similar scores between the groups on these items would be one piece of evidence suggesting that MDD and DD belong in the same nosologic category.

2.2.3. Associated clinical variables of interest

General clinical status was assessed using the Portuguese version of the Clinical Global Impression (CGI; Guy, 1976), a well-known clinician-rated instrument. Ratings were indexed along a 7-point scale, ranging from 1 = not ill at all to 7 = among the most extremely ill. The CGI has been shown to have acceptable internal consistency and concurrent validity in adult patients diagnosed with depression and other conditions (e.g., Leon et al., 1993). Reardon et al. (2002) reported high inter-rater agreement using the CGI in outpatients.

The WHO Quality of Life-BREF (WHOQOL; The WHOQOL Group, 1998) is a 26-item, multidimensional, self-administered scale covering four domains of quality of life (QOL; psychological, social relationships, physical health and environmental) and an overall QOL score. Items are rated on a 5-point scale on which 1 indicates low, negative perceptions, and 5 indicates high, positive perceptions. Respondents judge their QOL in the previous 2 weeks. The WHOQOL is a generic and transcultural questionnaire designed for use with a wide spectrum of psychological and physical

<table>
<thead>
<tr>
<th>Comorbid diagnosis</th>
<th>Double depression</th>
<th>Major depression</th>
<th>Entire sample</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n=23</td>
<td>n=119</td>
<td>n=142</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>n=10; 44%</td>
<td>n=35; 29%</td>
<td>n=45; 32%</td>
</tr>
<tr>
<td>Social phobia</td>
<td>n=7; 30%</td>
<td>n=15; 12%</td>
<td>n=22; 16%</td>
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<tr>
<td>Agoraphobia</td>
<td>n=5; 22%</td>
<td>n=14; 12%</td>
<td>n=19; 13%</td>
</tr>
<tr>
<td>Agoraphobia with panic disorder</td>
<td>n=2; 9%</td>
<td>n=11; 9%</td>
<td>n=13; 9%</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>n=2; 9%</td>
<td>n=13; 11%</td>
<td>n=15; 11%</td>
</tr>
<tr>
<td>Obsessive–compulsive disorder</td>
<td>n=4; 17%</td>
<td>n=5; 4%</td>
<td>n=9; 6%</td>
</tr>
<tr>
<td>Posttraumatic stress disorder</td>
<td>n=0; 0%</td>
<td>n=5; 4%</td>
<td>n=5; 4%</td>
</tr>
<tr>
<td>Bulimia nervosa</td>
<td>n=0; 0%</td>
<td>n=2; 2%</td>
<td>n=2; 1%</td>
</tr>
<tr>
<td>Alcohol dependence</td>
<td>n=0; 0%</td>
<td>n=0; 0%</td>
<td>n=0; 0%</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>n=1; 4%</td>
<td>n=1; 1%</td>
<td>n=2; 1%</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>n=0; 0%</td>
<td>n=0; 0%</td>
<td>n=0; 0%</td>
</tr>
<tr>
<td>Anorexia nervosa</td>
<td>n=0; 0%</td>
<td>n=2; 2%</td>
<td>n=0; 0%</td>
</tr>
</tbody>
</table>
disorders. The Portuguese version of the WHOQOL showed excellent psychometric properties of reliability, internal consistency, construct validity, and sensitivity to change in depression when used in Brazilian depressed outpatients (Berlim et al., 2003, 2005). The presence of family history for Axis I disorders was determined through unstructured questioning of patients and family members by clinicians.

3. Results

Table 2 lists the means and standard deviations of relevant variables. The data-analytic plan was to compare individuals with DD to those with MDD using $t$-tests (when dependent variables were continuous) and $\chi^2$ test for independence (when dependent variables were categorical).

3.1. Depressive symptoms and suicidality

Baseline severity of depressive symptoms was measured using the BDI. A significant difference was found between patients with MDD and DD on the BDI ($t(140)=3.58, P<0.001$), such that patients with DD endorsed more depressive symptomatology. Anhedonia ($t(35.97)=2.58, P<0.05$) was more often reported by people with DD, while hopelessness ($t(140)=1.47, P=NS$) was not reported differentially between the groups. There were also no differences in the amount of melancholic ($\chi^2=0.56, P=NS$) or psychotic symptoms ($\chi^2=1.66, P=NS$) experienced by either of the two groups.

According to both the MINI and the BDI, the presence of suicide risk and ideation did not differ between groups (MINI: $\chi^2=3.50, P=NS$; BDI: $\chi^2=1.99, P=NS$). However, the intensity of suicidal ideation was higher among those with DD as measured by both the MINI ($t(140)=3.30, P<0.001$) and the BDI ($t(26.97)=2.04, P=0.051$).

3.2. Comorbidity

Individuals diagnosed with DD experienced a higher number of comorbid disorders than those with MDD, even after controlling for the fact that, by definition, individuals with DD have at least two diagnoses ($t(140)=2.08, P<0.05$). Additionally, the only Axis I disorders to occur at significantly different rates between the two groups were social phobia ($\chi^2=4.68, P<0.05$) and obsessive–compulsive disorder ($\chi^2=3.50, P=0.061$). Both of these disorders occurred more often than would be expected in the DD group.

3.3. Associated clinical variables of interest

Baseline scores on the CGI indicated that there was no difference in overall functioning between people with MDD and DD ($t(140)=1.50, P=NS$). However, scores on the physical health, psychological, environmental, and overall scales of the WHOQOL significantly differed between individuals with MDD and those with DD. Specifically, patients with DD had reported poorer QOL on each of the above-mentioned scales (physical health: $t(140)=2.95, P<0.01$; psychological: $t(140)=3.14, P<0.01$; environmental: $t(140)=2.02, P<0.05$; overall: $t(140)=2.21, P<0.05$). Scores on the final dimension of the WHOQOL approached significance, as well (social relationships: $t(140)=1.87, P=0.06$), such that individuals with DD had poorer quality social relationships than those with MDD alone. Seventy-six percent of the sample reported a family history of mental illness. However, the frequency of family history of mental illness was reported at similar rates by participants with MDD and DD, $\chi^2=1.76, P=NS$.

4. Discussion

This study examined whether people diagnosed with DD differed from those diagnosed with MDD on variables such as severity of depression, suicidality, Axis I comorbidity, family history of mental illness, and global functioning. The results indicate that DD may represent a relatively severe form of depression relative to MDD. Specifically, individuals with DD report greater severity of their depressive symptoms (according to the BDI) and more intense suicidal ideation (according to the BDI and the MINI). Furthermore, the results suggest that DD may be a clinical entity that is
qualitatively distinct from MDD, as evidenced by different patterns of comorbidity, quality of life, and symptom characteristics. Specifically, individuals with DD experienced increased rates of Axis I comorbidity, poorer quality of life, higher rates of certain disorders such as social phobia and OCD, and the presence of anhedonic symptoms.

On a descriptive level, the results of this study suggest that DD may be a nosological entity that can be distinguished from MDD on the basis of symptom severity and qualitatively different symptom profiles. This fact is important not only because it may help clinicians identify and communicate about severely depressed individuals by using the DD label, but also because it may be indicative of potential differences in the etiology, course, and/or potential treatment outcome in people with DD versus those with MDD. For example, from an etiological perspective, the unique patterns of comorbidity that have appeared in individuals with DD may provide clues about genetic and temperament vulnerabilities to this disorder. Additionally, from a clinician’s perspective, the fact that individuals with DD experience more intense depressive symptoms and suicidal ideation could suggest that their treatment would be more effective if delivered more frequently/intensely or if occurring over a longer duration than in individuals with MDD. Future treatment outcome studies should investigate whether treatments traditionally used with depressed patients would need to be altered to best serve individuals with DD.

Future studies should also more fully examine whether DD is qualitatively different from MDD by conducting taxometric analyses. This type of research would provide important information regarding the true dimensional or categorical nature of these two depressive spectrum disorders. If the disorders appeared to be qualitatively distinct (as suggested by the results of this study), a taxometric analysis would be able to identify strong indicators of each disorder, which would aid clinicians in accurately diagnosing clients. It would also assist in potential reform of the diagnostic classification system, as DD is not currently a diagnosable disorder according to the DSM-IV (American Psychiatric Association, 2000).

There are several strengths and limitations of the study that should be acknowledged. Firstly, this study is distinctive in that it examines a sample of outpatients in Brazil while previous studies on DD have been almost exclusively conducted using American participants. These results may contribute unique insight into the cross-cultural nature of psychopathology. However, this sample’s unique properties may limit its generalization to outpatient samples in other countries, including the United States. Additionally, it is necessary to consider issues of statistical power associated with using a relatively small sample size (the sample size for DD was 23). Although we had 71% or 97% power to detect a medium or large effect size, respectively, there is a possibility that a smaller effect size would have been detected if the samples had been larger. Finally, although all members of the current MDD sample have no history of dysthymia, it is possible that some of them may eventually experience co-occurring MDD and dysthymia (i.e., be classified as having DD). Longitudinal studies will be needed to assess the potential crossing-over between diagnoses and its related consequences.

References

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