Predictors of Patient and Caregiver Distress in an Adult Sample With Bipolar Disorder Seeking Family Treatment

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Abstract: Little is known about the potentially unique sources of distress in populations seeking family-oriented treatment for bipolar disorder. The present study aimed to characterize this new treatment population by measuring depression, anxiety, quality of life, knowledge of bipolar disorder, therapeutic alliance, and mental illness stigma in 43 bipolar patients and 41 caregivers at family treatment intake. In all, 50% of patients and 27.6% of caregivers had significant depressive symptoms, whereas 51.2% of patients and 45.5% of caregivers had significant anxiety symptoms. Caregiver anxiety was inversely related to patient anxiety, stigma, and poor alliance. Treatment nonadherence was associated with more anxiety and stigma in patients and less anxiety in caregivers. In summary, family-oriented bipolar treatment seekers are significantly distressed at intake, and may benefit from lowering anxiety and stigma in patients and raising awareness and concern in caregivers. Future research should further clarify the complex relationships between caregiver and patient symptoms and attitudes.

Key Words: Bipolar disorder, family treatment, caregiver, distress, adherence.

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The lifetime prevalence of bipolar spectrum disorders in the United States is 4.4% (Merikangas et al., 2007), comprising the sixth leading cause of disability worldwide (Murray and Lopez, 1996). Although pharmacotherapy is effective in reducing the symptoms of bipolar disorder, many patients treated with pharmacotherapy alone continue to suffer from residual symptoms and functional disability. In recent years, several psychosocial therapies have been found to be of benefit in bipolar disorder when used adjunctively with pharmacotherapy (Miklowitz, 2006; Rouget and Aubry, 2006; Zaretsky et al., 2007).

One form of psychosocial therapy that has received research support in the treatment of bipolar disorder is family-oriented therapy (Miklowitz, 2001; Reinares et al., 2002). The inclusion of family or other caregivers in the care of bipolar patients can improve patient outcomes by ameliorating the burden experienced by caregivers (Reinares and Vieta, 2004), as well as by teaching the family to work together more effectively in managing the illness (Rouget and Aubry, 2006). Family-focused treatment, a family-oriented intervention that has been extensively studied by Miklowitz and colleagues (Miklowitz et al., 2003), has been associated with fewer relapses and episodes of hospitalization compared with individual treatment (Rea et al., 2003).

METHODS

Procedure

The present study used initial assessment data from an ongoing study of family-involved bipolar treatment being conducted at the Family Center for Bipolar Disorder (FCBD) at Beth Israel Medical Center in New York City. The present study includes all consecutive patients and caregivers presenting to our center between 2006 and 2008 with a clinical diagnosis of bipolar spectrum disorder, who consented to participate in research. Patients and their caregivers came to our center by one of the following routes: self-referral, referral from area clinicians, or referral from the general psychiatry outpatient clinic at Beth Israel Medical Center.

Upon their initial visit to the FCBD, patients and caregivers underwent clinical psychiatric assessment and also completed initial research questionnaires. Diagnoses made clinically by FCBD clinicians were used to determine study eligibility. Approximately 60% of patients were determined at clinical assessment to have a diagnosis other than bipolar disorder. The most commonly encountered diagnoses other than bipolar disorder were borderline personality disorder, other personality disorders, and major depressive disorder. These nonbipolar patients and their caregivers were excluded from the present study, and their data were excluded from analysis. Caregivers were chosen by patients as the primary person who provided support when they got sick and whom they wanted to include in their treatment. All patients and caregivers provided written informed consent, and the study was reviewed and approved by the institution’s IRB and conducted in accordance with the Helsinki Declaration of 1975.

Assessments

The following measures were used in the study:
The Center for Epidemiologic Studies Depression Scale (Radloff, 1977) is a 20-item self-report scale with demonstrated construct validity, which was used to assess depressive symptoms over the past week in patients and caregivers. A cutoff score of 16 has been customarily used to identify those with “clinically significant” depressive symptoms (Radloff, 1977).

The 20-item Spielberger State Trait Anxiety Inventory—state version (Spielberger et al., 1970) is a widely used measure of current anxiety symptoms. A cutoff of 46 for men and 45 for women was derived from published norms (Spielberger et al., 1970).

The Quality of Life Enjoyment and Satisfaction Questionnaire—short form (Endicott et al., 1993) is a 16-item self-report measure of the degree of enjoyment and satisfaction experienced in various areas of daily functioning over the past week. Scores range from 16 to 80, with a higher score reflecting greater satisfaction. Scores on this scale have been shown previously to be decreased in euthymic bipolar patients and improved with psychosocial intervention (Michalak et al., 2005).

The Internalized Stigma of Mental Illness scale (Ritsher et al., 2003) is a 29-item scale which evaluates internal experiences related to stigmatization. Scores range from 29 to 116. The scale was adapted by our group for use in caregivers by changing items to refer to the significant other rather than the self, as well as by omitting 15 nonapplicable items. Caregiver scale scores range from 14 to 56.

The Bipolar Knowledge scale (BK) is a 16-item questionnaire developed by our study group (Cronbach α = 0.72) to assess patient and caregiver general knowledge of basic facts about bipolar illness. Items include true-false questions such as “Bipolar disorder affects the same number of men and women” and multiple-choice questions such as “Which of the following are common side effects of lithium?” Scores range from 0 to 43. (Questionnaire available upon request).

The Poor Alliance scale (PA) is a 5-item questionnaire developed by our study group (Cronbach α = 0.96) to assess the extent of problems in doctor–patient communication. Patients rated their relationship with doctors and health care providers over the past 3 months. Items are rated on a 1 to 4 scale from “always” to “never” with scores ranging from 5 to 20, a higher score reflecting a worse relationship. All five items that make up this scale are included in the Appendix. Caregiver relationship with the patient’s providers was not assessed.

Data Analysis

Demographic variables were compared between groups using chi square or independent t tests as indicated. Correlations between patient and caregiver distress variables and treatment targets were calculated using Pearson’s correlation analyses.

When more than one treatment target was significantly correlated with a given distress variable, stepwise linear regression analysis was performed to determine which of the 3 treatment targets (BK, stigma, and therapeutic alliance) were predictors of the distress variable. These analyses were conducted with the distress variable as the dependent variable and either caregiver or patient treatment targets as predictors.

A large percentage of bipolar families who participated in intake assessments (50%) never provided data at the 3-month point. Therefore we examined differences in demographics, distress variables, and treatment targets between these nonadherent participants and those that continued to participate to explore variables that may improve retention. As there was no expectation that families who presented for consultation alone would continue at our center, these families (n = 8) were excluded from analysis of adherence.

As this study was exploratory in nature and the sample size was relatively small, we did not correct for multiple comparisons. All statistical analyses were 2-tailed and used a 0.05 level of significance.

RESULTS

Participants

During the designated period, data were collected from a total of 72 patients and 70 caregivers. As mentioned earlier, patients diagnosed by a FCBD clinician with a primary clinical diagnosis other than bipolar spectrum disorder were excluded from the analyses presented here, leaving a total of 43 patients (24 bipolar I, 14 bipolar II, 5 bipolar NOS) and 41 caregivers who met criteria. Of 43 patients, 36 (83.7%) reported being on psychiatric medication at the time of evaluation. Years since first psychiatric diagnosis ranged from 0 to 44, with a mean of 16.21 years (SD = 13.43). Number of lifetime hospitalizations ranged from 0 to 10, with a mean of 2.10 (SD = 2.60). Caregivers represented a range of relationships to the patient: 20 were spouses/partners, 8 mothers, 5 sisters, and 10 others (father, sister, grandmother, daughter, AA sponsor). Although very few patient scores were missing, there was an appreciable amount of missing data in caregivers. Of 41 caregivers, depression was rated for 29, anxiety for 30, life quality for 28, BK for 32, and stigma for 30.

Patient and Caregiver Independent Group Comparisons

As shown in Table 1, demographic characteristics of bipolar participants and their caregivers were comparable. Figure 1 compares distress and treatment target variables in patients and caregivers. As can be seen, patients had significantly more depression and worse quality of life than caregivers. Fifty percent of patient scores exceeded the cutoff score of 16 for clinically significant depression, while 27.6% of caregiver scores exceeded the cutoff. Anxiety in patients and caregivers was comparable, with 51.2% of patients and 45.5% of caregivers exceeding the cutoff score of 46 for males and 45 for females for clinically significant anxiety. Quality of life in patients (M = 53.3; SD = 1.9) was significantly lower than in caregivers (M = 57.3; SD = 1.3).

BK did not differ between patients (M = 18.7; SD = 0.7) and caregivers (M = 16.8; SD = 0.8). Stigma scores (M = 53.0; SD = 14.2 in patients; M = 24.6; SD = 6.3 in caregivers) were not compared between groups because the patient and caregiver stigma scales contained different numbers of items. Mean patient PA was 6.8 (SD = 2.9).

Correlations Between the 3 Distress Variables in Patient–Caregiver Pairs

For those patient and caregiver pairs who completed each scale (ns range between 26 and 31), correlations between patient and caregiver distress variables were shown in Table 2. Depression and life quality were positively correlated within pairs; in other words, patients who reported less depression and higher quality of life were associated with caregivers reporting less depression and higher quality of life. However, caregiver anxiety was significantly negatively correlated with patient anxiety and patient depression and significantly positively correlated with patient quality of life. In other words, caregivers reporting more anxiety were linked to patients who were less depressed and reported better quality of life. Reflecting the different directions of intercorrelations among distress variables, overall distress scores between patients and caregivers were not significantly correlated (r = 0.01, df = 39, p = 0.948).

Correlations Between Distress Variables and Treatment Targets

Table 3 shows correlations between patient distress variables and treatment targets of patients and caregivers, with associations...
found with patient stigma and therapeutic alliance. Table 4 shows correlations between treatment targets and caregiver distress variables, with more caregiver anxiety associated with patients experiencing better alliance and less stigma. There were no associations with caregiver treatment targets.

**Prediction of Patient and Caregiver Distress Variables**

Table 5 shows results of linear regression analyses performed to determine which treatment targets predicted distress variables, in cases in which more than one treatment target was significantly correlated with a given distress variable.

**Comparison of Adherence**

Fifty percent of the sample was adherent with subsequent treatment. Adherent participants comprised 17 patients and 16 caregivers, while nonadherent participants comprised 17 patients and 16 caregivers. Demographic characteristics of adherent and nonadherent participants were comparable (Table 6). However, as shown in Figure 1, nonadherent patients endorsed significantly greater anxiety and stigma, whereas caregivers of nonadherent patients endorsed significantly lower anxiety.

**DISCUSSION**

This study’s purpose was to characterize a sample of bipolar spectrum patients and their caregivers who sought family treatment. The major findings of the study were as follows. Patients as well as their caregivers presented with considerable distress. Patient and caregiver depression and patient and caregiver quality of life were, not surprisingly, positively related. However, unexpectedly there was an inverse relationship between anxiety in caregivers and distress as well as PA in patients. In addition, treatment nonadherence was associated with more anxiety and stigmatization in patients and less anxiety in caregivers. The association of caregiver anxiety with less distress in patients at presentation and with more likelihood of adherence by the family suggests that anxiety in caregivers may be a positive prognostic sign.

The finding of considerable distress in patients and caregivers presenting for family treatment is consistent with previous findings. In our population, 50% of patients and 30% of caregivers had scores exceeding the cutoff for clinically significant depression and nearly 50% of both groups had scores exceeding the cutoff for clinically significant anxiety. While patients are generally expected to be symptomatic at presentation, the extent of symptoms experienced by caregivers has only recently begun to be elucidated. In a recent review, Steele et al. (2010) found that the majority of studies examining symptoms in bipolar caregivers reported the presence of caregiver psychosocial symptoms, with approximately 46% of caregivers reporting depression and approximately 32.4% reporting mental health service use. This evidence supports treating caregivers of individuals with bipolar disorder as potential “hidden patients” with symptoms that would benefit from evaluation and treatment.

The finding of a relationship between worse therapeutic alliance and patient depression, anxiety and QOL is also consistent with previous studies. In a study of patients with serious psychiatric disorders, Tyrrell et al. (1999) found that better therapeutic alliance was associated with more general life satisfaction. In a naturalistic, longitudinal study of bipolar patients, Strauss and Johnson (2006) found that depression and therapeutic alliance covaried over time, with worse alliance associated with greater severity of depression. As patients and caregivers begin family-involved treatment, it will be instructive in the future to examine the caregivers’ alliance with the practitioner and its effect on patient and caregiver symptoms and treatment outcome.

In our sample, though both alliance and stigma were related to patient depression, stigma predicted depression over alliance, indicating stigma was the driving force behind these associations. Stigma was also associated at the trend level with patient anxiety, but in that case poor therapeutic alliance predicted anxiety over stigma. The associations found between patient stigma and patient depression and anxiety are consistent with previous research. Yen et al. (2005) found that greater stigma was associated with more severe depression in outpatients with depressive disorders. Stigma has also been associated with lower self-esteem (Link et al., 2001) and decreased medication adherence (Sirey et al., 2001) in people with mental illness. Perlick et al. (2001b) found that in bipolar patients, postepisode stigma predicted worse social adjustment months later. As discussed further below, patient stigma was also associated with worse adherence. These findings support the importance of interventions that focus on destigmatizing the illness early in treatment.
A counterintuitive finding was the inverse relationship between caregiver anxiety and patient distress variables, stigma, and PA. Literature would suggest that caregivers experience greater burden when patients are more symptomatic. For example, Perlick et al. (2001a) found that the level of burden reported by caregivers of bipolar and schizophrenic patients increased in relation to total patient symptom severity, and Dore and Romans (2001) found that caregivers tended to be significantly distressed by the way the patient related to them when unwell. Perlick et al. (2007) found that the experience of burden was related to depression in the caregivers of bipolar patients. However, in our sample, caregivers who reported less anxiety were linked to patients that were more depressed, more anxious, and reported worse life quality and therapeutic alliance.

One possible explanation of this seemingly paradoxical finding could involve the source of motivation to enter a new treatment. In general, greater levels of distress and problem severity have been shown to motivate patients for therapy (van Beek and Verheul, 2008, Ryan et al., 1995). Because in the case of bipolar family treatment, the “patient” can be conceptualized as comprising the entire family system, any family member’s elevated distress might motivate treatment-seeking for the designated patient. Thus, more distressed caregivers may bring relatively well-feeling patients into treatment and vice versa, resulting in the pairing of less distressed patients with more distressed caregivers and vice versa. This hypothesis implies that patients seeking family treatment might not otherwise present for treatment when they did without the influence of the family, and therefore family bipolar treatment programs may have unique opportunities for prevention and earlier intervention.

Another explanation for our finding could be that caregivers reporting less anxiety at intake were more likely to be “in denial” about the patient’s problems. Coping with a stressor through denial has been defined as “refusal to believe that the stressor exists or trying to act as though the stressor is not real” (Carver et al., 1989). Specifically in bipolar patients, denial as a coping strategy has been associated with poorer adherence to medication (Greenhouse et al., 2000). As mentioned earlier, as the “patient” can be conceptualized as comprising the entire family system, a caregiver’s denial could adversely effect the treatment adherence of the patient. Conversely, acknowledgment by the caregiver of the severity of the bipolar patient’s situation, which could result in increased caregiver anxiety, could help motivate the family’s continued participation in treatment. In addition, patients in families in which the caregiver does not acknowledge the severity of the patient’s problems may feel less well understood by their caregivers, contributing to their greater distress.

Finally, an alternate explanation of the inverse relationship between patient distress and caregiver anxiety may have been that patients reporting less depression and anxiety might be more likely to be manic or hypomanic; a limitation of this study was that mania ratings were not obtained. In a study of caregiver burden due to patients bipolar disorder, Dore and Romans (2001) found that of the different phases of bipolar illness, 30% of caregivers found mania most distressing while only 19% found depression most distressing (46% found both equally distressing); they also found that aggression and violence in mania were the most disturbing patient behaviors to caregivers, even above suicidality in depression. Thus, caregivers in our sample may have been more anxious because patients were more manic at presentation.

Adherence was associated with less anxious and stigmatized patients and with more anxious caregivers. Stigma’s association with nonadherence is consistent with previous studies; stigma has been shown to detrimentally affect both medication (Sirey et al., 2001; Adewuya et al., 2009) and psychosocial (Fung et al., 2008) adherence.
treatment adherence in the mentally ill. Literature linking anxiety to adherence is more scarce. Roux et al. (2009) found an association between anxiety and poorer HIV treatment adherence in HIV-infected French women. We are not aware of any studies examining the relationship between anxiety and treatment adherence in bipolar spectrum patients. However, in a recent review, Kilbane et al. (2009) found that the presence of comorbid panic disorder may confer an increased risk of suicide in bipolar patients. These findings highlight the importance of attending to anxiety as much as mood-related symptoms in bipolar spectrum populations, with the clinical implication that focusing on lowering anxiety in patients and attempting to destigmatize the illness early in treatment may promote better outcomes.

There are several limitations to this study. It was a preliminary study with a respectable but relatively small sample size. Because it entailed a single-point assessment of intake data, relationships between variables could only be examined cross-sectionally, and therefore causation cannot readily be inferred. In addition, because our sample self-referred for treatment, our data may not generalize to nonfamily treatment-seeking patients and their families. Manic symptoms were not measured at intake, which complicates interpretation of distress measures in patients and caregivers.

### TABLE 3. Correlations Between Patient Distress Variables and Patient and Caregiver Treatment Targets

<table>
<thead>
<tr>
<th>Patient Distress Variables</th>
<th>Patient Treatment Targets</th>
<th>df</th>
<th>r</th>
<th>p</th>
<th>Caregiver Treatment Targets</th>
<th>df</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCES-D</td>
<td>pBK</td>
<td>39</td>
<td>-0.01</td>
<td>0.996</td>
<td>cBK</td>
<td>29</td>
<td>0.07</td>
<td>0.730</td>
</tr>
<tr>
<td>pISMI</td>
<td>38</td>
<td>0.47</td>
<td>0.003*</td>
<td></td>
<td>cISMI</td>
<td>27</td>
<td>0.18</td>
<td>0.356</td>
</tr>
<tr>
<td>pPA</td>
<td>34</td>
<td>0.43</td>
<td>0.011**</td>
<td></td>
<td>cPA</td>
<td>29</td>
<td>0.13</td>
<td>0.510</td>
</tr>
<tr>
<td>pSTAI</td>
<td>pBK</td>
<td>40</td>
<td>-0.18</td>
<td>0.253</td>
<td>cBK</td>
<td>29</td>
<td>0.04</td>
<td>0.829</td>
</tr>
<tr>
<td>pISMI</td>
<td>39</td>
<td>0.30</td>
<td>0.06***</td>
<td></td>
<td>cISMI</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pPA</td>
<td>35</td>
<td>0.43</td>
<td>0.009*</td>
<td></td>
<td>cPA</td>
<td>29</td>
<td>0.20</td>
<td>0.547</td>
</tr>
<tr>
<td>pQ-LES-Q</td>
<td>pBK</td>
<td>41</td>
<td>0.04</td>
<td>0.819</td>
<td>cBK</td>
<td>30</td>
<td>-0.23</td>
<td>0.218</td>
</tr>
<tr>
<td>pISMI</td>
<td>41</td>
<td>-0.18</td>
<td>0.250</td>
<td>cISMI</td>
<td>28</td>
<td>-0.10</td>
<td>0.595</td>
<td></td>
</tr>
<tr>
<td>pPA</td>
<td>37</td>
<td>-0.36</td>
<td>0.027**</td>
<td></td>
<td>cPA</td>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* *p < 0.01.
** *p < 0.05.
*** *p < 1.0.

ISMI indicates internalized stigma of mental illness; PA, poor alliance scale.

### TABLE 4. Correlations Between Caregiver Distress Variables and Patient and Caregiver Treatment Targets

<table>
<thead>
<tr>
<th>Caregiver Distress Variables</th>
<th>Patient Treatment Targets</th>
<th>df</th>
<th>r</th>
<th>p</th>
<th>Caregiver Treatment Targets</th>
<th>df</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>cCES-D</td>
<td>pBK</td>
<td>28</td>
<td>0.13</td>
<td>0.487</td>
<td>cBK</td>
<td>28</td>
<td>0.02</td>
<td>0.909</td>
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<tr>
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<td>27</td>
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<td>0.655</td>
<td>cISMI</td>
<td>26</td>
<td>0.26</td>
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<tr>
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<td>24</td>
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<td>0.150</td>
<td></td>
<td>cPA</td>
<td>23</td>
<td>0.02</td>
<td>0.937</td>
</tr>
<tr>
<td>cSTAI</td>
<td>pBK</td>
<td>32</td>
<td>0.19</td>
<td>0.292</td>
<td>cBK</td>
<td>22</td>
<td>0.10</td>
<td>0.657</td>
</tr>
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<td>pISMI</td>
<td>31</td>
<td>-0.40</td>
<td>0.024*</td>
<td>cISMI</td>
<td>27</td>
<td>-0.41</td>
<td>0.030*</td>
<td></td>
</tr>
<tr>
<td>pPA</td>
<td>27</td>
<td>-0.41</td>
<td>0.030*</td>
<td></td>
<td>cPA</td>
<td>29</td>
<td>0.11</td>
<td>0.547</td>
</tr>
<tr>
<td>cQ-LES-Q</td>
<td>pBK</td>
<td>29</td>
<td>0.14</td>
<td>0.456</td>
<td>cBK</td>
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<td>-0.13</td>
<td>0.500</td>
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<td>0.520</td>
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</tr>
<tr>
<td>pPA</td>
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<td>0.968</td>
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<td>cPA</td>
<td>27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* *p < 0.05.

### TABLE 5. Stepwise Linear Regression Analyses: Patient Treatment Target Predictors of Patient and Caregiver Distress Variables

<table>
<thead>
<tr>
<th>Patient Treatment Target</th>
<th>Patient Depression</th>
<th>Patient Anxiety</th>
<th>Caregiver Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>t (df = 34)</td>
<td>R²</td>
<td>t (df = 35)</td>
</tr>
<tr>
<td>Bipolar knowledge</td>
<td>0.38</td>
<td>-1.46</td>
<td>0.155</td>
</tr>
<tr>
<td>Stigma</td>
<td>0.20</td>
<td>1.04</td>
<td>0.304</td>
</tr>
<tr>
<td>Poor alliance</td>
<td>-1.62</td>
<td>0.19</td>
<td>-2.30</td>
</tr>
</tbody>
</table>

* *p < 0.01.
** *p < 0.05.
Race — — 3
/
Years of education 15.5
/ Age 45.2
/
research is needed to further clarify the complex relationships between caregiver and patient symptoms and perceptions. More

ging for family treatment to assess how caregiver distress relates to patient distress, and to shape early interventions accordingly. More

adherence in patients but greater adherence in caregivers. Efforts

considerable psychiatric distress, which was associated with poorer

upper estimation of nonadherence. Finally, our population sample

as the patients and families who contributed their time to this study.

PA SCALE ITEMS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Patients</th>
<th>Caregivers</th>
<th>Statistic</th>
<th>p</th>
<th>Adherent</th>
<th>Nonadherent</th>
<th>df</th>
<th>Statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (No. female)</td>
<td>Adherent 7 (58.3%) Nonadherent 6 (60.0%)</td>
<td>Adherent 10 (62.5%) Nonadherent 4 (80.0%)</td>
<td>$\chi^2 = 0.01$</td>
<td>0.937</td>
<td>$\chi^2 = 0.53$</td>
<td>0.469</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Age 45.2 ± 13.2 Age 41.5 ± 12.8</td>
<td>Age 52.5 ± 14.4 Age 48.8 ± 8.3</td>
<td>t = 0.78</td>
<td>0.447</td>
<td>t = 0.53</td>
<td>0.600</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Years of education</td>
<td>Years of education 15.5 ± 2.7 Years of education 14.1 ± 2.7</td>
<td>Years of education 14.94 ± 2.7 14.00 ± 2.83</td>
<td>t = 0.116</td>
<td>0.262</td>
<td>t = −0.44</td>
<td>0.696</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Race — —</td>
<td>Race — —</td>
<td>$\chi^2 = 4.97^a$</td>
<td>0.174</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska native</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>(12.5%)</td>
<td>(0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>Asian 1 (8.3%) Asian 0 (0%)</td>
<td>Asian 1 (6.3%) Asian 0 (0%)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>Black or African American 0 (0%)</td>
<td>Black or African American 1 (6.3%)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>White 10 (83.3%) White 4 (50%)</td>
<td>White 12 (75%) White 5 (100%)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino ethnicity</td>
<td>Hispanic or Latino ethnicity 1 (10%) Hispanic or Latino ethnicity 4 (44.4%)</td>
<td>Hispanic or Latino ethnicity 12 (75%) Hispanic or Latino ethnicity 7 (100%)</td>
<td>$\chi^2 = 2.90$</td>
<td>0.089</td>
<td>$\chi^2 = 0.96$</td>
<td>0.619</td>
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As adherence was defined by which participants provided follow-up data, it is possible that a small percentage of patients continuing treatment but not returning questionnaires could have led to an overestimation of nonadherence. Finally, our population sample presented for clinical assessment and treatment and not for a research study, and thus structured diagnostic interviews were not used for assessment. While this limited the availability of comprehensive lifetime diagnoses and comorbidity, it may also be more reflective of standard clinical practice.

CONCLUSIONS

In this bipolar disorder spectrum sample seeking family inclusive treatment, both patients and caregivers presented with considerable psychiatric distress, which was associated with poorer adherence in patients but greater adherence in caregivers. Efforts should be made in such a population to lower anxiety and stigma in patients, while raising concern and awareness in caregivers. In addition, it may be of great clinical importance in families presenting for family treatment to assess how caregiver distress relates to patient distress, and to shape early interventions accordingly. More research is needed to further clarify the complex relationships between caregiver and patient symptoms and perceptions.

APPENDIX

PA SCALE ITEMS

1. During the past 3 months, how often did doctors or other health care providers listen carefully to you?
2. During the past 3 months, how often did doctors or other health care providers show respect for what you had to say?
3. During the past 3 months, how often did doctors or other health care providers listen carefully to you?
4. During the past 3 months, how often did doctors or other health care providers show respect for what you had to say?
5. During the past 3 months, how often did doctors or other health care providers involve you in decisions about your health care as much as you wanted?

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REFERENCES


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