Cognitive and Perceptual Distortions in Borderline Personality Disorder and Schizotypal Personality Disorder in a Vignette Sample

Stephen E. Sternbach, Patricia H. Judd, Alex N. Sabo, Thomas McGlashan, and John G. Gunderson

Clinical vignettes of patients with borderline personality disorder (BPD) and schizotypal personality disorder (STPD) were evaluated and rated for evidence of cognitive and perceptual distortions. The differences in the distortions of each group were then compared. The findings show that while STPD patients have significantly more cognitive and perceptual distortions than borderlines, there is an abundance of such distortions in the borderline group. The borderline group may differ, moreover, in that their cognitive and perceptual distortions were found to be significantly more object-related than those of the schizotypal group.

Over the past several years, efforts to validly differentiate conceptual subgroups of the personality disorders on axis II of DSM-III-R have resulted in their separation into three clusters. In this schema, schizotypal personality disorder (STPD) falls into what is now referred to as the “cognitive cluster,” while borderline personality disorder (BPD) falls into the so-called dramatic cluster. This conceptualization of the categories emphasizes the cognitive distortions present in STPD and the unstable affective, interpersonal, and action-oriented features of the borderline diagnosis. Thus, DSM-III-R includes cognitive distortions in the diagnostic criteria for STPD. Borderline diagnostic criteria include no such cognitive or perceptual distortions.

However, clinicians have long reported their impressions that BPD patients present with cognitive and perceptual distortions either initially or over the course of treatment. A body of empirical work has accumulated recently that investigates the validity of these impressions. This work has studied the nature of psychotic symptoms present in BPD; the relation of these symptoms to those present in affective disorder; their state and trait characteristics and endurance over time; how they can discriminate BPD from other personality disorders; and has demonstrated a neuropsychological cognitive dysfunction on a number of variables in borderline patients when compared with normal controls. Such work underscores the question as to whether, and how, the cognitive and perceptual problems seen in BPD patients can be discriminated from those found in the STPD criteria.

Few studies to date have examined the differences between cognitive and perceptual distortions in BPD and STPD patients. In the process of reviewing the potential advantages of adding specific cognitive and perceptual distortions and dysfunctions to BPD criteria in DSM-IV, a subcommittee from the Personality Disorders work group and the Schizophrenia work group composed of L. Siever, M. Zanarini, T. McGlashan was formed. The present study arose out of their efforts. In this study, we examined clinical vignettes of patients diagnosed as having either STPD or BPD to assess the prevalence of cognitive and perceptual distortions in these two groups and to evaluate their differences.

METHOD

Fourteen investigators and/or clinicians who are involved in ongoing studies of BPD or STPD were asked to provide clinical vignettes where they had observed cognitive or perceptual distortions in their patients. The investigators, listed in Table 1, provided us with 42 vignettes. While not diagnosed by any one standardized method of assessment, the accuracy of the patients' diagnosis is presumed to reflect the high level of attunement of the investigators to personality diagnosis using DSM-III-R criteria and to the presence of cognitive and perceptual distortions in their patients. The vignettes we received varied in length, format, and descriptive complexity from clinical examples of a particular distortion to structured interview samples with elaborated clinical histories. Because two vignettes were of patients with mixed STPD and BPD pictures, they were discarded from the sample.

The remaining 40 vignettes (26 BPD, 14 STPD) were evaluated for evidence of cognitive and perceptual distor-
COGNITIVE AND PERCEPTUAL DISTORTIONS IN BPD AND STPD

Table I. Contributors of Vignettes

<table>
<thead>
<tr>
<th>Author</th>
<th>Institution</th>
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<tbody>
<tr>
<td>L. Siever, M.D.</td>
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<tr>
<td>M. Stone, M.D.</td>
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<td>J. Gunderson, M.D.</td>
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<tr>
<td>J. Wheelis, M.D.</td>
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<td>J. Herman, M.D.</td>
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<td>P. Links, M.D.</td>
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<td>J. Paris, M.D.</td>
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<td>T. Smith, M.D.</td>
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<td>K. Silk, M.D.</td>
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<td>M. Schwarz, M.D.</td>
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<td>A. Tarnapolsky, M.D.</td>
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<td>L. S. Benjamin, Ph.D.</td>
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<td>A. Skodol, M.D.</td>
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<td>S. Torgenson, Ph.D.</td>
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Table 2. Categorical Differences

<table>
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<tr>
<th>Distortion</th>
<th>BPD (%)</th>
<th>STPD (%)</th>
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<tbody>
<tr>
<td>Dissociative experiences</td>
<td>58</td>
<td>65</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>35</td>
<td>29</td>
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<tr>
<td>Derealization</td>
<td>19</td>
<td>35</td>
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<tr>
<td>Recurrent illusions</td>
<td>19</td>
<td>0</td>
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<tr>
<td>Body image distortions</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Transient hallucinations</td>
<td>69</td>
<td>55</td>
</tr>
<tr>
<td>Auditory</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>Visual</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Olfactory</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Transient delusions</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Transient paranoid episodes†</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>Ideas of reference**†§</td>
<td>27</td>
<td>6</td>
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<tr>
<td>Chronic suspiciousness†§</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Fixed delusions†</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Unusual sensory experience</td>
<td>15</td>
<td>20</td>
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<tr>
<td>Odd or illogical reasoning†</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Magical thinking†§</td>
<td>8</td>
<td>0</td>
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<tr>
<td>Telepathic experiences§</td>
<td>8</td>
<td>0</td>
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<tr>
<td>Unusual religious beliefs††</td>
<td>0</td>
<td>5</td>
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<tr>
<td>Clairvoyance*§</td>
<td>4</td>
<td></td>
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<tr>
<td>Superstitiousness</td>
<td>8</td>
<td>0</td>
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<tr>
<td>Odd speech†§</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Compulsions/feelings of being controlled†</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Symptoms related to object*</td>
<td>65</td>
<td></td>
</tr>
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*P < .05 in A.S./S.S. ratings.
†P < .005 in A.S./S.S. ratings.
‡P < .05 in P.J. ratings.
§Criterion for STPD in DSM-III-R.

Raters A.S. and S.S. found significantly more signs of cognitive disturbance in the STPD group (P < .03), as did rater P.J. (P < .01). As shown in Table 2, these differences were primarily on those items listed by DSM-III-R as among the diagnostic criteria for STPD. Raters A.S./S.S. and rater P.J. found ideas of refer-
ence, chronic suspiciousness, and unusual religious beliefs to be significantly more prevalent among the STPD group. Raters A.S./S.S. also found fixed delusions, odd or illogical reasoning, magical thinking, clairvoyance, odd speech, and feelings of being controlled to be significantly more prevalent.

Cognitive and perceptual distortions were also common among the BPD group. Although not significant, raters A.S./S.S. and P.J. found a higher prevalence of dissociative experiences, transient hallucinations, unusual sensory experiences, and transient delusions among the BPD group. Raters A.S./S.S. found an increase in body image distortions in the BPD group.

**DISCUSSION**

This study adds to research that has attempted to clarify the phenomenology of the personality disorders and to substantiate their discriminant validity. Its aim has been to demonstrate the presence of cognitive and perceptual dysfunction in the BDP group while comparing this dysfunction to that present in a sample of STPD patients. The results of this vignette sample study seem to show that while both personality disorders have a cognitive dysfunction, it is expressed in different ways within each disorder.

The lack of standardization of the sample vignettes used in this study was clearly a methodological limitation. Further, the cognitive and perceptual distortions used by the raters were not based on operational definitions of the phenomena, creating biases in the reporting of the data, as well as uncertainties in rating them. Another limitation in this study resulted from the differences in sample size and items rated by the two sets of raters (A.S./S.S. and P.J.), creating difficulties in comparing the results they obtained. Future studies need to be based on standardized samples of cognition, for instance, transcripts of sessions, and rated according to operationally defined criteria in a uniform design.

The results of this study, its methodical problems notwithstanding, are informative. While there were significantly more signs of cognitive dysfunction in the STPD group, as would be expected from the DSM-III-R definition of that diagnosis, the abundance of cognitive distortions in the BDP group suggests that a cognitive dysfunction may be a significant feature of that diagnosis as well. In addition, the fact that the occurrence of cognitive and perceptual distortions experienced in an important object-related context was significantly more common in the borderline vignettes points to a way in which the criteria of DSM-IV for BPD might include a cognitive dysfunction feature that could help to distinguish these patients from those with STPD, rather than diminish this distinction.

At baseline, the cognition of patients with STPD could be characterized as peculiar, organized into religious, philosophical, or political belief systems that are odd, rigid, and support an idiosyncratic view of the world. Under stress, their cognitive organization becomes more rigid and more floridly bizarre with frank cognitive distortions, but even without stress they experience enduring cognitive distortions. In contrast, BPD patients have a problem with the organization and integration of ideas. In the context of a stressful interpersonal transaction, the cognition of BPD patients becomes more disorganized with greater vulnerability to cognitive and perceptual distortions. Thus, they have a stable underlying cognitive dysfunction, although actual cognitive and perceptual distortions may appear intermittently. We believe that these differences in STPD and BPD patients may reflect a stronger relationship between S1PD and schizophrenic vulnerability, on the one hand, and between BPD and environmentally mediated processes such as extreme early stress and trauma in the family environment which interferes with cognitive development, on the other.

Our results indicate the importance of studying the contexts associated with the cognitive distortions of these two groups of patients, for instance, stress versus nonstress states; interpersonal versus noninterpersonal situations.

**REFERENCES**


