The interface between borderline personality disorder and bipolar spectrum disorder demonstrated in a nonclinical sample

Kirsten Nokling

CITATION
The interface between borderline personality disorder and bipolar spectrum disorder demonstrated in a non-clinical sample

Kirsten Nokling

Abstract
This paper investigates the relationship between borderline personality disorder and bipolar disorder using the Personality Assessment Inventory for Borderline Personality Disorder and the Hypomanic Personality Scale. Subfactors from the two scales were used in a correlation analysis. The conclusion is drawn that there are two very different disorders at work which happen to be characterised by very similar cycles and some shared underlying symptoms.

Keywords
bipolar disorder; borderline personality disorder; interface; Personality Assessment Inventory; Hypomanic Personality Scale

Introduction
Borderline personality disorder (BPD) is the most common personality disorder (Hyacinth & Sharma, 2009), affecting 1-2% of the population (Torgersen et al., 2001). BPD also shows strong associations with bipolar disorder, which is a mood and affective disorder from Axis I. The typical cycle of adult bipolar disorder is characterised by episodes of mania usually lasting around three months, followed by episodes of severe clinical depression lasting between six and eight months (British Psychological Society, 2010). Bipolar disorder is not defined as an independent disorder in the DSM-IV-TR, but as the presence of both manic episodes and depression, which together encompass the cyclic mood disorder known as bipolar disorder. Furthermore, the manic episodes need not be visible, with bipolar type II consisting of major depressive episodes, and episodes of hypomania, a stage below the true elevations of mania, often presented as high-functioning behaviours. A hypomanic episode, as defined in DSM Fourth Edition (American Psychiatric Association, 2000) consists of persistently elevated, expansive, or irritable mood, lasting throughout at least four days. These periods of elation are brief or absent in BPD (Koenisberg et al., 2002; Henry et al., 2001)

The relationship between BPD and Bipolar Disorder
The relationship between BPD and bipolar spectrum disorders has been debated extensively in recent years (Benazzi, 2006; Paris, Gunderson et al., 2006) leading to the conclusion that between 12% and 23% of inpatients with bipolar disorder also had BPD. As many as 17% of people with BPD were found to have at least one first-degree relative with bipolar disorder in Akiskal’s (1981) study (and a further 17% had at least one first-degree relative who suffered from depression), demonstrating potential genetic co-morbidity here between diagnoses of BPD and family history of affective disorder (Rosenberger & Miller, 1989). However, co-occurrence and family co-morbidity does not necessarily indicate that BPD and Bipolar Disorder exist on a spectrum. Considering the numerous overlaps in symptomology between the two in areas such as self-harm, affective instability, impulsivity, and unstable interpersonal relationships (Hyacinth & Sharma, 2009) the question remains as to whether these two disorders might best be viewed as part of the same spectrum.

It is important to consider the idea that co-occurrence may simply reflect similarities in the ways in which these two disorders are defined. The DSM categorises disorders on the basis of symptoms, and both bipolar disorder and BPD possess in their diagnostic criteria symptoms which are descriptive of reactivity of mood, e.g., impulsivity. In recent years factor analytic studies have aimed to identify precisely which constructs underpin BPD, enabling researchers to reduce an entire diagnostic criterion down into basic clusters or factors. In every case reviewed where a factor analysis had been done on a BPD scale using inpatients, three very similar factors have arisen; ‘impulsivity’ (Clarkin, Hull & Hurt, 1993; Sanislow, Grilo, & McGlashan, 2000; Sanislow et al., 2002), ‘affective instability’ (Clarkin, Hull and Hurt, 1993; Sanislow, Grilo, and McGlashan, 2000), and ‘identity problems and interpersonal difficulties’.

The aim of the present study was to use alpha scores to create three factors from the Borderline Personality Disorder Scale, and to examine the correlational effects between these factors and the factors derived from the Hypomanic Personality Scale, to examine the intricate relationships between these two disorders, in a non-clinical sample.
Method

Participants
The sample consisted of 260 students (115 males, 138 females, and 7 participants who choose not to disclose their gender), with a mean age of 20.43 years (age range 18-36). The most commonly occurring age was 19 for both gender groups. The majority of the sample had no history of mental illness, with 26 (10%) reporting history of mental health conditions (19 depression, 2 anxiety, 2 depression and anxiety, 1 obsessive compulsive disorder, 1 bipolar, and 1 attention-deficit hyperactivity disorder).

Measures
The 24-item borderline subscale of the Personality Assessment Inventory (PAI; Morey, 1991) was split using Alpha to create subscales to allow for data reduction. Three distinct categories emerged, with alpha scores ranging between .696 - .767, indicating robust factors; ‘impulsive actions’, ‘affective liability’, and ‘unstable relationships’. The PAI has an internal consistency of .79 across three samples (1,000 normative; 1,051 college student; 1,246 clinical). Median test-retest reliability across all three samples was .83. Cronbach’s alpha of internal consistency reliability found acceptable subscale-scale reliabilities averaging .66.

The 48-Item Hypomanic Personality Scale is also known in some literature as the Hypomanic Personality Questionnaire (Eckblad & Chapman, 1986). The Hypomanic Personality Scale had already been widely used in the literature in recent years; Rawlings et al. (1999) conducting a factor analytic study of the Hypomanic Personality in non-clinical British, Spanish and Australian samples which had revealed a four-factor model, which was utilised for this study. The factors were; ‘hypomania’, ‘creativity’, ‘hypersociability’, and ‘averageness’. The internal reliability of the Hypomanic Personality Scale as reported by its authors is .87 and test-retest reliability is .81 (Eckblad & Chapman, 1986).

Results
Table 1 shows the means and standard deviations for all scale and subscale scores. Table 2 shows Pearson’s correlations between the overall PAI and Hypomanic Personality Questionnaire (HPQ) scores, and between individual factors for each scale. The individual factors were obtained by deriving components from the PAI-BOR using Alpha, and Rawlings et al.’s (1999) pre-existing four-factor model was used for the HPQ.

Discussion
The research hypothesis predicted a relationship between BPD and bipolar disorder and a significant positive relationship was found between the mean total scores of the HPQ and the PAI providing support for the co-morbidity reported in the literature (Akiskal, 1981). When the questionnaires were broken down into subfactors it was the hypomania and impulsivity factors which related best to the subfactors in the scales. These findings suggest there are two separate disorders at work here, simply underpinned by overlapping symptomology as a result of a factor such as ‘impulsivity’ being present in both diagnoses, and that we are not in fact talking about the same observable phenomena.

Table 1

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PAI score</td>
<td>25.2</td>
<td>9.8</td>
<td>258</td>
</tr>
<tr>
<td>Impulsive actions</td>
<td>6.9</td>
<td>4.0</td>
<td>255</td>
</tr>
<tr>
<td>Affective lability</td>
<td>11.1</td>
<td>4.5</td>
<td>254</td>
</tr>
<tr>
<td>Unstable relationships</td>
<td>7.2</td>
<td>3.7</td>
<td>255</td>
</tr>
<tr>
<td>Total HPQ score</td>
<td>20.0</td>
<td>8.4</td>
<td>257</td>
</tr>
<tr>
<td>Hypomania</td>
<td>8.1</td>
<td>4.4</td>
<td>252</td>
</tr>
<tr>
<td>Creativity</td>
<td>7.3</td>
<td>3.4</td>
<td>249</td>
</tr>
<tr>
<td>Hypersociability</td>
<td>2.7</td>
<td>2.0</td>
<td>254</td>
</tr>
<tr>
<td>Averageness</td>
<td>1.5</td>
<td>1.5</td>
<td>252</td>
</tr>
</tbody>
</table>

Table 2 shows that the predominant interrelationships between the two scales lies in the relationship between the impulsivity subscale of the PAI and the hypomania subscale of the HPQ.

Table 2

<table>
<thead>
<tr>
<th>Overall PAI score</th>
<th>Impulsive actions</th>
<th>Affective lability</th>
<th>Unstable relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HPQ score</td>
<td>0.44</td>
<td>0.50</td>
<td>0.26</td>
</tr>
<tr>
<td>Hypomania</td>
<td>0.58</td>
<td>0.51</td>
<td>0.48</td>
</tr>
<tr>
<td>Creativity</td>
<td>0.19</td>
<td>0.29</td>
<td>0.04</td>
</tr>
<tr>
<td>Hypersociability</td>
<td>0.20</td>
<td>0.36</td>
<td>0.02</td>
</tr>
<tr>
<td>Averageness</td>
<td>0.01</td>
<td>0.15</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

**Bold** = p < 0.001
**Underline** = p < 0.01
**Italic** = p < 0.05
The debate about the clarity of distinction between disorders has been ongoing since Achenbach and Edelbrock (1978), but the present research has found evidence to conclude that it is possible to observe the point at which BPD ends and bipolar disorder begins, even thought it is true that the two cannot be as easily differentiated as once thought. Although high levels of co-occurrence have been demonstrated with impatiant samples (Paris, Gunderson & Weinberg, 2007; Akiskal, 2002, 2004), this new research evidence from non-clinical samples has lead researchers to reach a different conclusion: that one disorder does not evolve into the other, providing support for claims which falsified this claim of an evolution of one disorder to the other (Paris, Gunderson & Weinberg, 2007). While bipolar disorder and BPD are concluded as being vitally different disorders, with overlapping factors including self harm, impulsivity, and marked instability (Gunderson et al., 1996) it is noted that the two disorder do follow very similar pathways of extreme highs and extreme lows, and additional mixed states and ‘outside of episodes state’.

This research has successfully met the aims laid out in the introduction, and demonstrated the triadic relationship between self harm and BPD and bipolar disorder. Furthermore, it has mapped the precise overlaps between bipolar disorder and BPD, reaching conclusions to demonstrate that whilst the two disorders appear to have several overlapping symptomologies and even overlapping cycles, the two disorders can be observed coexisting against each other in non-clinical samples. The large sample sizes and non-clinical samples used provide robust findings from which inferences can be made that the observed effects would be even more significant, were clinical patients used. Future research is recommended to look more directly at the presence and developmental of self harm cycles central to these disorders, and to longitudinally map individual’s mood cycles of bipolar disorder spectrum and BPD experiences, to gain a fuller understanding of the subfactors of overlap, and at which state developmental which subfactors have the most significant impact.

This research goes some way to explore the relationships between BPD and bipolar disorder, concluding that while overlap in several areas can be pinpointed, there are two very different disorders at work here, which happen to be characterised by very similar cycles and underlying symptoms, which need careful mapping and exploration to avoid confusion between the two.

Affiliation
Kirsten Nokling, Lancaster University, UK

Contact information
Kirsten Nokling, k.nokling@lancaster.ac.uk

References


Koenigsberg, H.W.; Harvey, P.D.; Mitropoulou, V.; Schmeidler, J.; New, A.S.; Goodman, M.; Silverman,


