Three potential emotional causes of depressive symptoms – negative emotionality, hyper-emotionality and hypo-emotionality: a preliminary study

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Abstract

The broad diagnostic category of DSM Major Depressive Disorder (MDD) is heterogeneous, and we suggest that it can be subdivided into at least three groups: those with Negative-emotionality who experience strong negative emotionality such as misery, anxiety, guilt, fatigue etc; Hyper-emotionality who experience strong emotions in both negative and positive directions; and Hypo-emotionality who experience weak or blunted emotions. This model was tested using an internet survey of 251 subjects that measured strength of depressive symptoms; and strength and directionality of emotions. All three emotionality groups were significantly more depressed than controls. This indicates that depressive symptoms may be a consequence of at least three different emotional patterns. One implication may be that different emotionality sub-types could benefit from different treatments.
The broad diagnostic category of DSM Major Depressive Disorder (MDD) was established in 1980 – in practice it seems that MDD can be interpreted as inclusive of patients with a wide range of dysphoric feelings including depression, anxiety, mood swings and emotional blunting/unemotionality (Watson 1988a, Nutt 2007). In other words, depressive symptoms may be regarded as a consequence of more than one emotional state; rather as pain may be a consequence of many causes (Charlton 2009).

It has been argued that Major Depressive Disorder is therefore heterogeneous, and can be subdivided into at least three groups: those with Negative-emotionality who experience strong negative emotionality such as misery, anxiety, guilt, fatigue etc; Hyper-emotionality who experience strong emotions in both negative and positive directions; and Hypo-emotionality who experience weak or blunted emotions. This model was tested using an internet survey of 251 subjects that measured strength of depressive symptoms; and strength and directionality of emotions. All three emotionality groups were significantly more depressed than controls. This indicates that depressive symptoms may be a consequence of at least three different emotional patterns. One implication may be that different emotionality sub-types could benefit from different treatments.
Controls n=27, Lowest 25% NA, Highest 25% PA

Negative-E n=50, Highest 50% NA, Lowest 50% PA

Hyper-E n=76, Highest 50% NA, Highest 50% PA

Hypo-E n=64, Lowest 50% NA, Lowest 50% PA

<table>
<thead>
<tr>
<th>Emotionality</th>
<th>BDI Mean</th>
<th>BDI SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive-E Control</td>
<td>17.3</td>
<td>9.89</td>
<td></td>
</tr>
<tr>
<td>Negative-E</td>
<td>43.9</td>
<td>7.21</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hyper-E</td>
<td>35.7</td>
<td>9.61</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hypo-E</td>
<td>35.8</td>
<td>10.1</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

The results show that despite the ‘control group’ being in the Mild range for depressive symptoms on the BDI; all three of the hypothesized emotionality groups scored were significantly more severe in depressive symptoms than Controls; indeed within the ‘Severe’ depressive symptoms range for BDI scores.

These preliminary results seem clear and consistent with the hypothesis that depressive symptoms may be a consequence of at least three different emotional patterns – Negative-E, Hyper-E and Hypo-E. This conclusion, of course, requires replication in a clinical subject sample evaluated by face-to-face diagnostic interviewing. If correct, one potential implication may be that different emotionality sub-types could benefit from a different therapeutic approach; for example Hyper-E from a trial of serotoninergic agents, and Hypo-E from noradrenaline/dopaminergic agents (Nutt et al 2007; Charlton 2009).

REFERENCES


