

Managing Mood and Anxiety: A Trans-diagnostic Approach

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Abstract

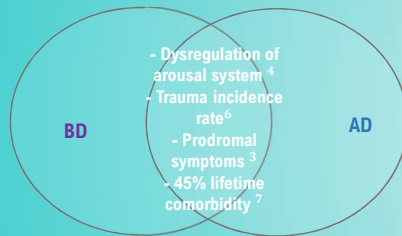
Bipolar disorder and anxiety disorders are highly comorbid. To optimize assessment and treatment of many concurrent disorders, we developed a psychometric scale of 29 items. It contains the features of 4 common anxiety disorders and had good psychometric properties in Rasch analysis.

Mood

Bipolar disorder (BD) is characterized by disrupted mood (depression), hypomania, and mania. Individuals may have Type I, Type II, or an unspecified bipolar disorder.

Anxiety

Anxiety disorders (AD) are characterized by fear and distress. There are many kinds of AD—from generalized, specific phobias, post-traumatic stress to panic



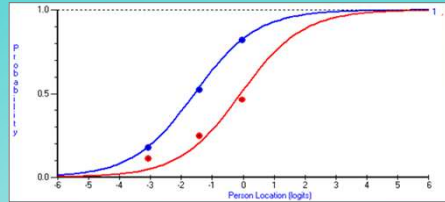
Methods

We first surveyed N=89 individuals with a bipolar disorder, using anxiety scales^{1,2,5,8}:

- The Clinically Useful Anxiety Outcomes Scale: for generalized anxiety
- The Social Phobia Inventory: for social anxiety
- The Panic Disorder Severity Measurement: for an AD characterized by panic attacks
- The Trauma Screening Questionnaire: for PTSD and trauma

Then we fit our dataset to the “Rasch model”, a method of estimating the quality of psychological scales, in RUMM 2030. This model allowed us to:

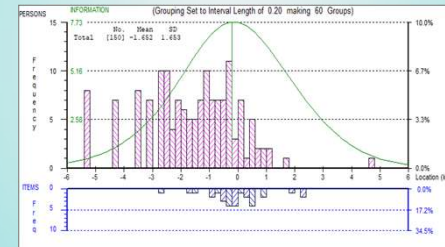
- Check the accuracy of spacings between response options (1)
- Identify items that did not measure anxiety well (2)
- Determine the structure of our scale (i.e. scales and subscales)
- Examine the distribution of items along the anxiety trait and identify gaps (3)
- Evaluate the reliability of items across our sample's characteristics (4)



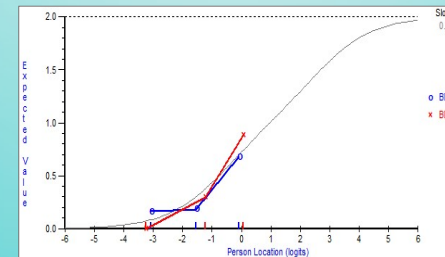
1. The curves should be spaced about 1 logit, in order, and the points should fall along the curves.

Item	Item location	Standard Error	Fit Residual
1	-1.479	0.197	1.599
3	-0.256	0.209	1.238
4	-1.261	0.197	1.734
5	-0.056	0.216	-1.301
6	-0.454	0.205	-0.067
7	-0.044	0.216	-0.296
8	-1.28	0.199	-0.929
9	-0.142	0.213	0.056
10	-0.177	0.212	2.874

2. The level of anxiety an item measured (location), and its fit with the rest of the items (residual) are shown.



3. Map of where the items and people are along the levels of anxiety.



4. Reliable items should have somewhat identical curves (in colour) along the larger curve.

Figures 1-4: Item response curves, Item fit indices, the spread of items and people (in our sample) across the anxiety trait, reliability curves (ICCs).

Measuring Anxiety in Bipolar Disorders: Results

Using the Rasch model, we determined which items out of the 57 were not optimal for measuring anxiety (2) or were redundant with others. We thus reduced 28 items. We also learned that the response options (e.g. SPIN: *not at all, a little, some, a lot, and extremely*) were not equally spaced and should be replaced (1). Once these changes were made, we had a 29-item scale. The scale is unidimensional, meaning it measures only one trait. It worked well for patients independent of their diagnosis (type I or II), sex, and time of taking the survey (4).

Key Finding:

- We created one, 29-item anxiety scale from four previously validated scales.

Conclusions

Treatment of comorbid AD can be optimized for individuals with bipolar disorder using a trans-diagnostic approach. We created an optimized 29 item scale that we will further test in other diagnostic groups.

References and Acknowledgements

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