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Bipolar Disorder: What Can Psychotherapists Learn From the Cognitive Research?

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Abstract

Randomized controlled trials of psychological treatment, principally cognitive therapy, for bipolar disorder have yielded inconsistent results. Given the status of this evidentiary base, we provide a more fine-grained analysis of the cognitive profiles associated with bipolar disorder to inform clinical practice. In this practice-friendly review, we consider evidence that both negative and positive cognitive styles are related to bipolar disorder. Cross-sectional and prospective evidence suggest that negative cognitive styles are related to depression within bipolar disorder, but there also is evidence that bipolar disorder is related to an elevated focus on goals as well as to increases in confidence during manic states. With such findings as backdrop, we consider the outcomes of psychological treatments for bipolar disorder and advance several suggestions for clinical practice.

Keywords

cognition therapy; bipolar disorder; mania

Bipolar I disorder (BPD) is a highly recurrent disorder with severe consequences for affected persons. Even when the best available medication treatments are provided, many clients with this disorder continue to struggle. Breakthrough episodes of mania have been estimated to occur almost yearly for persons taking lithium (Keller et al., 1992), and depressive symptoms are likely to be present for as many as one third of the weeks of the year (Judd et al., 2002). Rates of completed suicide are 15-fold those of persons in the general population (Harris & Barraclough, 1997).

Treatment guidelines place primary focus on mood-stabilizing medications; however, psychotherapy is an important supplement to pharmacotherapy for this disorder. In this practice-friendly review, we review the evidence that BPD is related to cognitive styles, and that those cognitive styles help predict the course of both depression and mania. We then consider ways in which current knowledge about cognitive styles can help guide treatment within BPD.

Cognitive Models of BPD

Among nonclinical samples, it is well established that mood state robustly influences whether people pay attention to negative or positive information, whether they remember negative compared to positive personal memories, and how negatively or positively they describe themselves. It also is clear that negative thoughts can trigger and intensify negative moods.

Hence, it makes sense that cognition has been one of the most studied aspects of mood and anxiety disorders.

Given the intense mood changes involved in BPD, it seems natural that cognitive paradigms would be applied to this disorder. Researchers in this area, though, face some difficult quandaries. Even though BPD is defined by a single lifetime episode of mania, the study of cognition is complicated because many people with BPD also experience episodes of major depression. Thus, beyond considering the interplay of mania and cognition, it becomes important to consider depressive symptoms. Accordingly, we consider the evidence for both negative and positive cognitive styles among people with bipolar disorder.

Negative Cognitive Styles

Early research has focused on negative cognitive styles during bipolar depressive episodes. We begin by describing these findings and discuss whether such negative cognitive styles can be documented after remission. Then, we turn toward the question of whether negative cognitive styles predict depression and mania.

Negative Cognitive Styles During Depressive Episodes

During a depressive episode, people with bipolar depression experience cognitions as negative as those experienced by people with unipolar depression (Johnson & Kizer, 2002). Studies using questionnaires have found that people with bipolar depression, like those with unipolar depression, describe low self-esteem (cf. Scott & Pope, 2003), negative self-beliefs (Hollon, Kendall, & Lumry, 1986), self-blaming attributions about negative events (cf. Reilly-Harrington, Alloy, Fresco, & Whitehouse, 1999), and rigid concerns about the need for achievement (cf. Hollon et al., 1986). People with bipolar depression appear similar to those with unipolar depression in that they tend to have a hard time ignoring negative words on the Stroop Color Naming Task (Lyon, Startup, & Bentall, 1999). There is some evidence that rumination—the tendency to focus on negative events and mood states without problem solving—is associated with risk for BPD (cf. KKnowles, Tai, Christensen, & Bentall, 2005). Some researchers have found even more severe deficits in self-esteem and dysfunctional attitudes among persons with bipolar depression than among those with unipolar depression (cf. Scott & Pope, 2003).

In sum, during depressive episodes, people with bipolar disorder tend to display cognitive styles that are as negative as those demonstrated by people with unipolar depression. This pattern has been demonstrated across measures of how people regard themselves, their life events, and their need to accomplish.

Cognition During Remission

Among people with unipolar depression, the negativity of cognitions appears to diminish as symptoms remit. Similarly, among people with BPD, there is evidence that the negativity of cognition is tied to the severity of current depression (for a review, see Johnson & Kizer, 2002). For example, current depression is correlated with rumination (cf. Knowles et al., 2005), and the tendency to perceive negative events as one's own fault appears to be correlated with severity of depression (Seligman et al., 1988). Hence, it appears that negative cognition is related to current depression among people with BPD.

Given that depression is tied to the negativity of cognition, one might wonder whether negative cognitive styles could be documented during remission. Findings on cognitive styles among people with remitted BPD have been inconsistent. Some researchers have reported evidence for negative cognitive styles associated with BPD in remission (cf. Ben-tall & Thompson, 1990). Other researchers have failed to find differences between persons with remitted bipolar

disorder and those with no mood disorder on self-esteem, Automatic Thoughts Questionnaire (ATQ) scores, and Dysfunctional Attitudes Scale (DAS) scores (for review, see Johnson & Kizer, 2002).

It may be the case that some, but not all, people with remitted BPD will show negative cognitive styles. A key question, then, is which variables are related to negative cognitive styles within BPD. In one innovative study of students with bipolar spectrum disorder, history of depressive disorder appeared important. Participants with a history of depression demonstrated a negative cognitive style that appeared comparable to those with unipolar depression. In contrast, those without a history of depression were similar to healthy controls in that negative cognitive style was not apparent (Alloy, Reilly-Harrington, Fresco, Whitehouse, & Zechmeister, 1999).

Taken together, the research has indicated that the negativity of cognitive styles is correlated with the severity of both current and previous depression. Given these patterns, it would seem that negative cognitive styles also might help predict the course of depressive symptoms. We turn next to prospective studies of this question.

Negative Cognitive Styles as Predictors of Depression

Similar to unipolar depression, the presence of negative cognition seems to predict increases in depressive symptoms. In one study, negative automatic thoughts, dysfunctional attitudes, and less positive automatic thoughts predicted increases in depression over time for individuals diagnosed with BPD (Johnson & Fingerhut, 2004). Another study among college students found that a tendency to remember negative adjectives about oneself, in combination with negative life events, predicted 11.7% of the variance in depressive symptoms (across bipolar II and unipolar participants) 1 month later (Reilly-Harrington et al., 1999). Finally, low self-esteem has been found to predict increases in depression over time (Johnson et al., 2000) as well as relapse in patients with BPD (Scott & Pope, 2003). Thus, negative cognitive styles seem to play a role in predicting bipolar depression. Such findings provide support for addressing overly negative cognitions as one aspect of treatment for bipolar disorder.

Negative Cognitive Styles as Predictors of Mania

Although the findings linking negative cognitive styles to bipolar depression are helpful, BPD is defined on the basis of mania. Do negative cognitive styles predict mania?

For the past 100 years, clinicians have advanced the notion of the “manic defense” (cf. Abraham, 1911)—that people with BPD fight against feelings of failure and low self-esteem with a flight into manic symptoms and overactivity. The notion suggests two tenets: (a) that people with BPD will do more to defensively ward off negative cognitions and affect than others will and (b) that because of these defensive efforts, negative cognitions about the self will predict increases in manic symptoms.

Several pieces of evidence are consistent with the idea of a specific form of defensiveness. First, some researchers have found that even when people with BPD endorse high self-esteem, they continue to blame themselves for failures more than others do (Winters & Neale, 1985) and to attend to negative information more than others do (Bentall & Thompson, 1990). Second, there is evidence that bipolar disorder is related to different types of coping in response to threat, including more sensation seeking (see Knowles et al., 2005) and more defensive responses to the threatening task of writing about one's own mortality (Johnson, Joiner, & Ballister, 2005). Hence, early evidence has suggested that people with BPD may display a specific type of defensiveness. That is, people with BPD may endorse feeling positively about themselves on scales such as the Rosenberg Self-Esteem Scale (Rosenberg, 1965), but then

still attend to negative self-relevant information, demonstrate low self-esteem on implicit measures, and react defensively to threats.

The second facet of the manic defense, though, relates to whether negative cognitions predict increases in mania. To date, only two studies have examined the role of negative cognitive styles as a predictor of mania. In one sample, neither low self-esteem nor negative cognitive styles predicted increases in mania among BPD persons over time (Johnson & Fingerhut, 2004; Johnson et al., 2000). In the second study, negative cognitive styles did predict increases in mild hypomanic symptoms among undergraduates (Alloy et al., 1999). It may be that better tests of this model, such as research using implicit measures of self-esteem to predict the course of disorder, will be more informative.

Positive Cognitive Styles

Aside from the empirical research on negative cognitive styles, a set of researchers have begun to test whether BPD is characterized by positive cognitive styles. Johnson (2005b) suggested that two facets of positive cognitive styles may be particularly important among people with bipolar disorder: a heightened focus on goal accomplishment and elevated confidence.

People with BPD, even during remission, are more perfectionistic than others are (Lam, Wright, & Smith, 2004). Along with this perfectionism, it also appears that bipolar disorder is related to setting higher goals. The Ambition Scale was developed to examine the range of life goals. Items were designed to cover highly improbable life goals such as making more than 10 million dollars, becoming famous, ruling a country, and having 50 or more lovers. In two initial validation studies (Johnson & Carver, 2006), risk of hypomania was correlated with endorsing higher life ambitions, particularly for highly extrinsic goals such as wealth and popular fame. Highly ambitious life goals appeared to be present even after controlling for baseline subsyndromal mood symptoms.

This traitlike emphasis on goals appears to interact with elevations in confidence during mania. Indeed, one of the major symptoms of manic episodes is overconfidence, and in keeping with this, people with bipolar disorder report more enthusiasm about their abilities as well as more positive memories. People with BPD and those at high risk for BPD are typically more positive in expectations for the future than are control participants (for a review, see Johnson, 2005b).

Even people at risk for BPD have demonstrated pronounced shifts in confidence when given success, for example, after false feedback about success on laboratory tasks. In one study, undergraduates who did and did not report hypomanic symptoms were asked to return for an experiment 6 weeks later in the semester. After sham-success feedback, undergraduates with a history of recent hypomanic symptoms reported that they were highly likely to guess the results of a coin toss (a chance task) whereas controls did not show these effects (Stern & Berrenberg, 1979).

In sum, there is some evidence for positive cognitive biases in BPD, but these appear to be of a specific form. People with BPD endorse setting much higher goals for their life and express higher expectations of meeting those goals. People at high risk for bipolar disorder tend to become overly confident in the face of success. Nonetheless, it is important to acknowledge that there is almost no prospective research on the role of positive cognitions in influencing the course of BPD.

Summary of the Research Evidence

The extant research evidence supports the idea that many clients with BPD will evidence a tendency to think negatively about themselves. Although such thoughts become less extreme

as depression remits, some patients continue to think negatively once depression clears, particularly if they have a history of depression. These negative cognitive styles are an indicator of future risk of depression. Similarly, many clients with BPD are likely to set unrealistically high goals for themselves, to perceive these goals as essential to achieve, and to experience large increases in confidence when they do achieve small successes.

Taken together, some studies have indicated that the thinking of people with BPD is overly negative whereas other studies have indicated that the thinking of people with BPD is overly positive. At first glance, these two sets of findings appear to conflict. One way of reconciling the evidence is that people with BPD are overly influenced by environmental feedback. This perspective is consistent with the excessive drive toward extrinsic success and admiration. Another way of conceptualizing the research is that underlying positive versus negative self-relevant constructs may be compartmentalized, such that shifts in self-evaluation would be more extreme as material relevant to positive versus negative aspects of self is activated (Power, de Jong, & Lloyd, 2002). Relatedly, cognitive styles may fluctuate more with mood shifts (cf. Bentall, Kinderman, & Manson, 2005; Jones et al., 2005).

Outcome Research

In the larger trials of cognitive behavioral therapy (CBT) for bipolar disorder, some findings have been quite positive (cf. Lam, McCrone, Wright, & Kerr, 2005). Compared to treatment as usual, CBT has been found to produce better clinical global impressions and trends toward reduced depression (Ball et al., 2006), and improved mood, social functioning, and less dysfunctional attitudes about goal attainment (Lam et al., 2003). Nonetheless, one study found that the advantages of cognitive therapy compared to treatment as usual were not apparent during the second year of follow-up (Lam, McCrone, et al., 2005), and in one large, multi-site study, persons assigned to cognitive therapy did not demonstrate lower symptom levels or relapse rates compared to those receiving treatment as usual (Scott et al., 2006). Analyses have suggested that cognitive therapy provides more relief from depressive symptoms than from manic symptoms (Lam et al., 2003).

Perhaps the variability in these outcome studies is not surprising when one considers the enormous complexity of the underlying cognitive variables that confront practitioners. Perhaps, too, the variability in results speaks to the variability in cognitive treatments.

The host of treatment manuals differ in their relative emphasis on different targets. Authors have expanded the original CBT for depression to cover areas unique to bipolar depression (Basco & Rush, 1996; Lam, Jones, Hayward, & Bright, 1999; Newman, Leahy, Beck, Reilly-Harrington, & Gyulai, 2002; Scott, 2001). Some manuals include more focus on negative cognitions whereas others include more focus on positive cognitions. Manuals also differ in how much they target treatment adherence (Basco & Rush, 1996), sleep continuity (Lam et al., 1999), or suicidality (Newman et al., 2002). Some versions of CBT place greater focus on the role of emotion in guiding cognition (Ball et al., 2006). Although most manuals detail individual interventions, group approaches also are available (cf. Palmer, Williams, & Adams, 1995).

10 Practice Implications

The following list contains 10 applied implications for clinicians, drawn from the cognitive research.

1. Psychotherapists would do well to remember that biology has a powerful role in influencing the course of disorder, and that pharmacological treatment is the mainstay

of treatment. Forming a close working relationship with a psychiatrist is very helpful and can facilitate more rapid attention to emergent symptoms.

2. We do not know which cognitive therapy manual is most effective. Overall, the literature on BPD lags far behind other disorders in understanding the predictors of outcome.
3. Overly negative cognitive styles appear related to depression within bipolar disorder. Hence, one would expect that challenging negative self-beliefs would be helpful in preventing future depressive episodes.
4. It is likely that many of the cognitive techniques developed for the treatment of unipolar depression will apply well to the treatment of bipolar depression.
5. Early evidence is consistent with the idea that reducing positive cognitive styles may help prevent mania (Lam, McCrone, et al., 2005). Persons with higher scores on hyperpositive self (i.e., the tendency to value aspects of the self that relate to being mildly high) fared less well in cognitive therapy for BPD. Given this, one treatment goal should be to reduce overly positive cognitive styles.
6. Any clinician who has attempted to change positive cognitions, though, quickly realizes just how difficult this endeavor can be. Traditional strategies for challenging negative cognitions, adjusted to address positive cognitions, are likely to damage rapport. For example, asking a person to examine the evidence for a positive belief can seem pejorative when applied to overly positive cognitive beliefs. Imagine the clinician who asks the client to consider the evidence for and against the idea that they are a genius! Such strategies are likely to lead to a stalemate.
7. Effectively addressing overly positive cognition requires a great deal of skill and thoughtfulness. Several manuals now include very helpful suggestions for this process. For example, Newman and colleagues (2002) proposed helping a client review the pros and cons of previously held positive beliefs. Often, it is easier for a client to gain perspective on their flights of confidence when looked at in retrospect than in the current moment.
8. We believe that our goal is to help clients understand that self-relevant cognitions can be highly mood-state dependent in BPD. We use a set of strategies to build this awareness. One strategy is to help a client monitor mood and confidence over the first several weeks of treatment. By graphing daily changes to show how mood and confidence are related, clients can be shown that their confidence may be less a reflection of their true abilities and more a reflection of a given mood. Understanding this may help them to rely less on affect as information about their abilities.
9. As persons begin to recognize how much confidence can vary over time, it becomes easier to institute strategies for evaluating the validity of cognitive beliefs about the self. Strategies such as asking close others for input about ideas can be accepted more easily once the basic fragility of self-evaluations can be shown.
10. Overall, addressing cognitive styles in bipolar disorder is likely to require a very strong therapeutic relationship. Strategies that help build rapport, such as gently listening to the client's experience of previous manic episodes and treatments, can help this goal.

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