Dysfunctional Attitudes in Bipolar Disorder

A.E. Zaretsky[1], V. P. Velyvis [2 3], & S. V. Parikh[2 3 4] on behalf of the PE/CBT Study Consortium

Sunnybrook & Women's Health Science Centre[1]

Centre for Addiction and Mental Health[2], University Health Network[3], and University of Toronto[4], Toronto, Canada.

Abstract

Introduction: The Dysfunctional Attitude Scale (DAS) is 40 item self-report psychological inventory that measures dysfunctional depressogenic cognitions. Although the DAS is mood-state dependent, it has also been shown to predict vulnerability to depression relapse in unipolar patients as well as in some studies of bipolar patients. Our previous research found that even after successful CBT treatment for bipolar depression, DAS scores remained elevated whereas successful CBT treatment for unipolar depression resulted in DAS normalization. Unfortunately, there is a paucity of data on the DAS in the maintenance phase of bipolar illness. We therefore examined baseline DAS scores in our sample of bipolar I and II patients undergoing maintenance psychosocial treatment for their bipolar illness. We attempted to evaluate whether baseline DAS scores were elevated and whether baseline DAS scores correlated with depressive and manic mood symptoms as well as other specific clinical and demographic features of bipolar illness.

Method: Our baseline DAS scores (n=193) were drawn from a sample of 204 bipolar outpatients (n=140 bipolar I, n=53 bipolar II, 57% female) undergoing an 18 month multi-site Canadian randomized controlled prospective study comparing adjunctive individual CBT to adjunctive group psychoeducation in the maintenance treatment of bipolar disorder.

Results: Our data show normative values of the baseline DAS with only mild elevation above normal. After controlling for baseline level of depression, we found no correlation between DAS and bipolar subtype, gender, duration of illness, number of previous depressive, hypomanic or manic episodes, medication compliance and intensity of pharmacotherapy. The DAS was found to be significantly related with both depressive and manic symptom severity.

Conclusions: The positive relationships between the DAS and depression as well as mania rating scores lends support to the cognitive theory of affective disorders which suggests that dysfunctional or distorted cognitive beliefs underlies affective mood symptomatolgy in bipolar disorder.

Introduction

What is the Cognitive Theory of Affective Disorders?

According to Beck's cognitive theory of affective disorders, individuals with "dysfunctional attitudes and beliefs" are more prone to developing affective disorders. Depressed individuals are presumed to have negative and distorted views regarding the self, the world, and the future. Recently, Lam and colleagues, have extended the cognitive model to include dysfunctional attitudes specifically for mania which they identified as excessive goal-attainment and anti-dependency. In general, one of the assumptions according to the cognitive model is that people suffer from emotional disorders because they have more distorted ("dysfunctional") beliefs which interfere with their ability to cope with stress effectively.

Many studies have demonstrated support for the importance of dysfunctional attitudes *in depression* as evidenced by significant associations between the Dysfunctional Attitude Scale (DAS; Weismann, 1980), a self-report measure of dysfunctional attitudes, and other measures of depression. In addition, several studies have noted that DAS scores tend to decrease in conjunction with decreasing levels depressive symptoms, both over time, as well as in response to treatment.

Where is the Evidence for Dysfunctional Attitudes in Bipolar Disorder?

Relative to the wealth of published studies investigating cognitive factors in unipolar depression, these factors have only been given lip service in studies of bipolar disorder. Moreover, the few studies that have investigated the DAS in relation to bipolar disorder have not demonstrated a consistent pattern of results, which makes it difficult to advance understanding of cognitive vulnerabilities in bipolar disorder in a systematic way. For example, in one study, 79 bipolar participants were found to have a negative cognitive style which was similar to those found in a unipolar depression comparison group (Reilly-Harrington., 1998). In another study, Zaretsky and colleagues (1999) did not find consistent relationships between DAS scores and symptom improvement. Lam et al. (2004) performed a principal components analysis of the DAS in a sample of 143 Bipolar I patients. Three new factors were derived for bipolar patients: Goal-Attainment, Dependency, and Acheivement. Goal attainment successfully differentiated a bipolar group from a unipolar depressed group and was predictive of hosptilizations due to mania.

Rationale and Hypotheses for our study

This study seeks to test the cognitive model as it pertains to bipolar disorder by examining the relationships between dysfunctional attitudes and reported levels of mood symptom severity. Previous studies examining this relationship suffered partially from small sample sizes which places limits on the ability to find a reliable effect (i.e., decreases statistical power). The current study is able to overcome this limitation, and will be able to report in a more conclusive way, whether dysfunctional attitudes as measured by the DAS are related to symptom severity in both depressive and manic mood states.

(1) Dysfunctional attitudes will be positively related to current levels of depression in bipolar patients.

(2) Dysfunctional attitudes will be positively related to current levels of mania/hypomania in bipolar patients.

The authors may be contacted by e-mail care of: sagar.parikh@uhn.on.ca

Method

Study Design

Data was obtained as part of a larger Canada-wide psychosocial clinical trial evaluating the benefits of group psycho-education versus individual cognitive-behavioral therapy directed toward bipolar disorder. The current study data was obtained from the pre-treatment (baseline) interview in order to avoid possible confounding effects from the differential treatment conditions.

Sample Characteristics

193 Bipolar Disorder I/II (SCID-I)
Bipolar I = 140
Bipolar II = 53

Age Range = 18–61 **Age Mean** = 40.69 (SD=10.85)

Sex
Males = 82 (43%) Females = 111 (57 %)

Previous # Mood Episodes:
Depressive Episodes = 9.07
Manic Episodes = 2.96
Hypomanic Episodes = 7.06

Marital Status
Married/common-law = 35%
Divorced/separated = 24%
Single = 41%

Duration of Illness
Mean = 18.7 years

Occupational Status
Unemployed = 21% Employed = 79%

Measures

Hamilton Depression Rating Scale (HAM-D 17)

Symptom severity for depressive symptoms was assessed using the *Hamilton Depression Rating Scale* (HAM-D-17; Hamilton, 1960; 1967). It is the gold-standard in clinician administered rating scales for depression. It contains 17 items which are rated by an interviewer and which assess symptoms of depression as well as other clinically related symptoms for the past week. It has been shown to be a valid and reliable measure of depressive symptom severity in numerous studies and is sensitive to change over time. Point spread of items either 0-4 or 0-2 spectrum (0=none; 4/2=severe)

Clinician Administered Rating Scale for Mania (CARS-M)

Manic symptom severity was assessed using the *Clinician Administered Rating Scale for Mania* (CARS-M; Altman et. Al, 1994). The CARS-M is a 15 item semi-structured interview and rating scale which assesses symptoms of mania over the last 7 days. Most of the items on the scale reflect DSM-IV criteria for mania. All items are rated on a 6-point scale based on increasing severity (0-5). This scale has been normed on a large sample and has demonstrated adequate validity and is the only mania rating scale to show test-retest reliability.

Intensity of Somatotherapy Index

The Intensity of Somatotherapy Index assigns a number to summarize the burden of medication where higher numbers signify higher dosages and/or numbers of medication taken.

Medication Compliance Index

Medication compliance is measured using one item which is rated along a 5 point Likert scale where 1 signifies never having missed their medication; 5 indicates having stopped taking all medications.

Dysfunctional Attitudes Scale (DAS)

The DAS is a 40-item self-report instrument, designed to identify cognitive distortions – particularly the distortions that may underlie or cause depression. The items on the DAS were constructed so as to represent several factors which represent value systems related to dysfunctional attitudes including: approval, love, achievement, perfectionism, entitlement, omnipotence, and autonomy. Unfortunately, the specific factors of the DAS are not psychometrically sound and therefore most researchers have used the total scale score as it was deemed more reliable. All items are scored on a 7-point scale where higher scores reflect more maladaptive beliefs.

The DAS reports very good internal consistency (alpha ranges from .84 - .92) and excellent test-retest reliability (8-week, r = 0.80 to 0.84). It has been shown to have good concurrent validity in that it has been shown to correlate highly with other measures of depression; it can distinguish adequately between depressed and non-depressed groups and has been shown to be sensitive to change following clinical intervention with depressed outpatients.

Sample Items from the DAS

- ***If I fail at work then I am a failure as a person***
- ***It is awful to be disapproved of by people important to you***
- ***It is best to give up your own interests in order to please other people***
- ***If a person asks for help, it is a sign of weakness***

Results

Sample Means, Standard Deviations, and Score Norm Interpretation

	Mean	SD	Interpretation
HAM-D 17	6.79	4.84	in remission
CARS-M	1.96	3.07	in remission
DAS	133.33	35.33	consistent with remission status

Correlations: DAS by reported number of depressive, manic and hypomanic episodes

	# depressive	# manic	#hypomanic
DAS	-0.017	-0.033	0.081
	ns	ns	ns

Correlations: DAS by age of onset & illness duration

	duration of illnes	age of onset
DAS	0.071	-0.132
	ns	ns

Correlations: DAS by medication burden and compliance

	medication burden	medication compliance
DAS	-0.103	0.071
	ns	ns

Analysis of Variance for DAS by Demographic Variables

	F	Sig.
Bipolar I/II	1.45	ns
Gender	1.44	ns
marital status	1.53	ns
education	1.72	ns
occupation status	1.53	ns

Correlations: DAS by HAM-D 17 & CARS-M

	HAM-D 17	CARS-M
DAS	**0.249****	**.200****
	p<.001	p<.005

Conclusions & Discussion

1) Depression and Mania rating scores indicate that this sample experienced negligible mood symptoms on average; scores on the Dysfunctional Attitude Scale for this sample are in keeping with published norms for bipolar subjects who are in remission (see Scott & Pope, 2003; Zaretsky, Segal, & Gemar, 1999)
2) There were no significant relationships between the DAS and other demographic variables of interest including gender, marital status, education, and occupational status, nor did the DAS show significant relationships with other clinical variables including bipolar type, lifetime number of depressive, manic and hypomanic episodes, age of onset, and duration of illness
3) Moderate significant correlations were found between the DAS and HAM-D as well as CARS-M

Discussion:

- Both depressive and manic/hypomanic mood symptoms are associated with higher dysfunctional attitudes.
- This lends support to the cognitive theory of affective disorders as applied to bipolar disorder.
- Further research is warranted to investigate which specific types of cognitive beliefs are important for bipolar depression as well as for bipolar mania. Such research should include assessment of Lam et al.'s (2004) proposed "goal attainment" factor of the DAS.