Coping Styles in Prodromes of Bipolar Mania

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Abstract

Introduction: The Coping Inventory for Prodromes of Mania (CIPM) is a self-report measure which is designed to assess how bipolar patients cope with early warning signs of mania. This 23-item measure contains four subscales including *stimulation reduction, problem-directed coping, seeking professional help, and denial or blame*. Since it was first published in 1999, no other extant data has been published on its psychometric properties, or its relationships with other variables of interest, making its validity and utility in bipolar research to date, unclear. This study was interested in exploring possible differences in coping styles between bipolar subtypes, as well as investigating relationships among the CIPM subscales and dysfunctional attitudes, a construct which is theoretically related to coping styles.

Method: 184 bipolar patients from across Canada completed the CIPM in addition to a measure of dysfunctional thinking styles as measured by the Dysfunctional Attitudes Scale (DAS). From this sample, 133 had a primary diagnosis of Bipolar I, and 51 were diagnosed with Bipolar II disorder, as assessed through a standardized clinical interview (SCID). Internal consistencies and mean scores for the subscales were commensurate with those published by the authors of the CIPM. Multivariate analysis of variance was used to determine if there were any differences in the CIPM subscales between Bipolar I and II subsamples.

Results: Bipolar I subjects tended to seek professional help much more than Bipolar II subjects. When analyses were performed separately by diagnosis category, it was also found that Bipolar I subjects appear to use stimulation reduction much less than the other three coping strategies. Whereas for Bipolar II participants, the most preferred coping tendency seemed to be the use of denial or blame as well as problem-directed coping. Finally, three CIPM subscales were found to be related to dysfunctional attitudes, lending support for its construct validity.

Conclusion: The CIPM appears to be a reliable and valid measure. Canadian norms appear consistent with previously published studies. Coping style preferences appear to differ according to Bipolar subtype. Future research on the CIPM should examine results in the context of Bipolar subtype.

Introduction

Background: The Clinical Challenge of Mania

Dealing with manic and hypomanic mood episodes can be one of the most challenging problems in the treatment of bipolar disorder. Patients often describe their manic phases as unpredictable and inescapable. Many others experience their elevated mood states as energizing, characterized by optimism and creativity. These mood states are clearly self-reinforcing and therefore often difficult to detect as potentially problematic, or else, extremely difficult to give up wilfully.

Understanding the potential negative consequences of ignoring or encouraging manic symptoms, and developing improved coping skills to counteract early warning signs is one of the central goals of psychoeducation for bipolar disorder. Learning to identify prodromal and early relapse symptoms of mania is the first step toward this goal.

Prodromes defined

A prodrome is defined as the interval from the time that the first symptoms are recognized to the time when the symptoms reach maximum severity; prodromes of mania have been reported to precede the full syndrome by weeks (Molnar et al., 1988).

Until recently, research on coping strategies adopted by patients experiencing episodes of mania had not received proper attention. A study conducted by Lam, Wong, and Sham (2001) demonstrated that bipolar patients were able to report their prodromal symptoms in a reliable way, most of which centred on behavioural prodromal changes. Furthermore, patients who reported the use of behavioural coping strategies during manic prodromes reported fewer full-blown episodes compared with those who did not. Clearly, proper identification and use of coping strategies during these prodromal stages of mania play a large role in managing bipolar disorder.

What is the Coping Inventory for Prodromes of Mania?

The Coping Inventory for Prodromes of Mania (CIPM; Wong & Lam, 1999) is a self-report measure which was developed so that researchers and clinicians could identify coping styles used by patients in response to early signs of mania, and so that psycho-social interventions could use this information to encourage the use of adaptive coping strategies. It should be noted that the coping strategies identified in this measure were generated from information derived from interviews of 40 bipolar patients and contain both adaptive and maladaptive coping strategies. Specifically, it contains four factors:

- **Stimulation Reduction** *(e.g., "generally avoided being with people")*
- **Problem-Directed Coping** *(e.g., "tried to monitor and restrain my behaviour")*
- **Seeking Professional Help** *(e.g., "started my medication again")*
- **Denial or Blame** *(e.g., "went on as if nothing happened, hoping the symptoms would go away")*

Introduction (cont'd)

Rationale for Study

1. Despite the clinical relevance of the investigation of coping strategies for mania, very little has been published on this topic since the inception of the CIPM. This study will describe the CIPM using a large Canadian sample.
2. It will also offer an opportunity to evaluate the scale in more detail from a psychometric perspective by examining the internal consistencies of the four factors of the scale.
3. The scale's validity will also be evaluated by examining its relationships with mood symptom severity as well as a measure of dysfunctional attitudes.
4. Finally, very little is known about potential differences between Bipolar I and II patients with respect to their coping style preferences; this will also be explored in this study.

Method

Study Design

The data for this study was 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 CIPM was chosen for this study specifically because coping with mania and its prodromes comprised a significant portion of both treatments. The CIPM was used as one of the outcome variables which were compared both at baseline and during the follow-up phases of the study. The results described herein reflect only the pre-treatment (baseline) data as many participants are still in the follow-up phase. Further information will be obtained at the conclusion of the follow-up phase regarding the ability of the CIPM to detect post-treatment change and its relationship with other variables of interest.

Sample Characteristics

Clinical Characteristics

N=184 Bipolar Disorder I/II (SCID-I)
- **Bipolar I** = 133
- **Bipolar II** = 51

Previous # Mood Episodes:
- **Depressive Episodes** = 9.17
- **Manic Episodes** = 2.88
- **Hypomanic Episodes** = 7.25

Duration of Illness
- **Mean** = 18.92 years (SD=12.71)

Demographic Characteristics

Age Range = 18–61
Age Mean = 40.93 (SD=10.87)
Sex: Males = 79 (43%)
Females = 105 (57 %)

Marital Status:
- **Married/common-law** = 36%
- **Divorced/separated** = 23%
- **Single** = 41%

Occupational Status:
- **Unemployed** = 47.5%
- **Employed** = 52%

Measures

Coping Inventory for Prodromes of Mania (CIPM)
This 23 item scale was designed to assess four types of coping responses to prodromes of mania which include *stimulation reduction, problem directed coping, seeking professional help, denial or blame.* Respondents are asked to rate the frequency with which they use each coping strategy on a scale from 1 (never) to 4 (all the time). The original article by Wong & Lam (1999) reports that all of the subscales demonstrate good stability and internal consistency (alpha's range from 0.70 – 0.85, except for *seeking professional help* = 0.50).

Dysfunctional Attitudes Scale (DAS)
The DAS is a 23-item self-report instrument, designed to identify cognitive distortions related to depression. 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).

Hamilton Depression Rating Scale (HAM-D 17)
Symptom severity for depressive symptoms was assessed using the 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 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 CARS-M (Altman et. al, 1994). It 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.

Results

CIPM scales: Means, Standard Deviations, Alphas, and Intercorrelations

(Wong & Lam, 1999 comparative norm data in parentheses)

SCALES	N	Mean	Std. Dev'n	Alpha	2	3	4
(1) Stimulation reduction	185 *(206)*	1.96 *(1.97)*	0.56 *(0.70)*	0.62 *(0.77)*	0.62** *(0.51**)*	0.41** *(0.44**)*	-0.11 *(-0.05)*
(2) Problem-directed coping	"	2.16 *(2.22)*	0.59 *(0.72)*	0.81 *(0.85)*		0.34** *(0.48**)*	-0.20** *(-0.02)*
(3) Seeking professional help	"	2.17 *(2.27)*	0.86 *(0.83)*	0.61 *(0.53)*			-1.87* *(0.06)*
(4) Denial or blame	"	2.15 *(2.21)*	0.51 *(0.54)*	0.70 *(0.72)*			

Note: * p < 0.01, ** p < 0.001

- Means and standard deviations are consistent with Wong & Lam, 1999
- Intercorrelations are also similar except that our sample evidenced significant negative relationships for denial or blame with problem-directed coping as well as professional help seeking

CIPM scales Zero-order Correlations with HAM-D, CARS-M & DAS

CIPM SCALES	HAM-D 17	CARS-M	DAS
(1) Stimulation reduction	-0.04	-0.02	-0.08
(2) Problem-directed coping	-0.08	0.08	-0.15*
(3) Seeking professional help	-0.11	-0.04	-0.21**
(4) Denial or blame	0.04	0.11	0.35**

Note: * p < 0.05, ** p < 0.01

- None of the CIPM subscales were related to high or low mood symptoms
- 2 of the 3 CIPM subscales were associated with the DAS; relationships were in predictable directions

MANOVA of CIPM by Bipolar Type

- A MANOVA was performed to identify multivariate effects of Bipolar type (I vs. II) on the CIPM subscales. An effect was found; further univariate analyses showed that Bipolar I subjects were more likely to seek professional help as compared to Bipolar II subjects. No other differences were found.

Scales	Bipolar I (n = 133)	Bipolar II (n = 51)	F (sig)
(1) Stimulation reduction	2.00	1.89	1.12 (ns)
(2) Problem-directed coping	2.20	2.07	1.77 (ns)
(3) Seeking professional help	2.33	1.75	18.12 (p<0.001)
(4) Denial or blame	2.13	2.23	1.30 (ns)

Univariate post-hoc comparisons within Bipolar Type

- Due to significant multivariate effects, analyses were performed separately for Bipolar I and Bipolar II groups
- Specifically, a series of planned comparisons were performed within each Bipolar type (I & II)

Bipolar I Scales	2	3	4
(1) Stimulation reduction	*	*	
(2) Problem-directed coping		*	
(3) Seeking professional help			*
(4) Denial or blame			

Bipolar II Scales	2	3	4
(1) Stimulation reduction	*		*
(2) Problem-directed coping		*	
(3) Seeking professional help			*
(4) Denial or blame			

Note: * = p< 0.05

- Bipolar I coping profile is characterized by an evenly distributed coping style preference, with a slight increased tendency to seek professional help as well as use problem-directed coping.
- Bipolar II coping profile is characterized by a tendency toward use of denial or blame & problem directed coping, together with a *lower* likelihood of seeking professional help and reducing stimulation in response to prodromes.

Conclusions & Discussion

- Overall, our sample was mostly free of significant mood symptoms & showed dysfunctional attitudes in keeping with previously published norms for bipolar remission status (Scott & Pope, 2003)
- CIPM subscales were not related to depressive or manic symptom severity which suggests that the CIPM is a measure of a more stable set of traits. This is important to note given it was created with the hope of being sensitive to change over time. Further research is needed to determine the sensitivity of the scale over time and treatment.
- Two of the adaptive CIPM subscales (*problem directed coping & seeking professional help*) were negatively related to the DAS, whereas the maladaptive coping strategy (*denial/blame*) was positively associated with the DAS, lending further support for its construct validity.
- Multivariate analyses suggested that BD II types were less likely to seek professional help in comparison to BD I. Post-hoc comparisons by type also showed a much greater tendency on the part of Bipolar II patients to use denial or blame and problem directed coping. Between the tendency toward denial/blame and the avoidance of help-seeking coping, this profile suggests that BD II patients are more at risk for relapse than one may have thought.

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