ELSEVIER

Journal of Affective Disorders 115 (2009) 11 – 17

Journal of Affective Disorders

www.elsevier.com/locate/jad

Research report

# Hopelessness across phases of bipolar I or II disorder: A prospective study

Hanna M. Valtonen [a,b], Kirsi Suominen [a,b], Jari Haukka [a], Outi Mantere [a,b], Petri Arvilommi [a,b], Sami Leppämäki [a,c], Erkki T. Isometsä [a,c,*]

[a] *Department of Mental Health and Alcohol Research, National Public Health Institute, Helsinki, Finland*
[b] *Department of Psychiatry, Jorvi Hospital, Helsinki University Central Hospital, Espoo, Finland*
[c] *Department of Psychiatry, Helsinki University Central Hospital, Helsinki, Finland*

Received 30 April 2008; received in revised form 19 June 2008; accepted 19 June 2008
Available online 3 August 2008

**Abstract**

*Background:* Hopelessness, a key risk factor for suicidal behaviour overall, has been studied little among bipolar disorder (BD) patients. For purposes of prevention, it is important to know whether it is predominantly a patient's permanent trait or merely reflects the highly variable illness states. We investigated the degree to which hopelessness is trait- or state-related during the course of BD.
*Methods:* The Jorvi Bipolar Study (JoBS) is a naturalistic prospective study representing psychiatric in- and outpatients with DSM-IV BD I and II. Repeated measurements with the Beck Hopelessness Scale of 188 patients at baseline, 6 months and 18 months were analysed using a linear regression model with general estimation equations. Factors covarying with hopelessness during follow-up were investigated.
*Results:* Levels of hopelessness varied markedly between illness phases, being highest in depressive and mixed phases, and lowest in euthymia, hypomania or mania. Hopelessness was independently associated with concurrent severity of depression (estimate 0.231, $p<0.001$), anxiety (0.105, $p<0.001$), fewer manic symptoms (−0.096, $p=0.001$) and comorbid personality disorder (1.741, $p=0.001$). However, the strongest predictor of degree of hopelessness during follow-up was previous hopelessness (0.403, $p<0.001$).
*Limitations:* After baseline, relatively few patients had manic, hypomanic, mixed or depressive mixed phases. Hopelessness was measured at only three time-points.
*Conclusions:* Level of hopelessness varies markedly between patients in different phases of BD, but is also, to a degree, a permanent feature. Among BD patients, hopelessness appears to be both a trait- and state-related characteristic.


*Keywords:* Bipolar disorder; Prospective study; Hopelessness; Bipolar I disorder; Bipolar II disorder; Depressive phase, Suicide

## 1. Introduction

Hopelessness, widely investigated as a risk factor for suicidal behaviour in general, has seldom been studied among bipolar disorder (BD) patients. BD is associated with a significant risk of completed suicide, suicide

* Corresponding author. Institute of Clinical Medicine Department of Psychiatry P.O. Box 22, 00014 University of Helsinki, Finland. Tel.: +358 9 471 63728; fax: +358 9 47163735.
*E-mail address:* erkki.isometsa@helsinki.fi (E.T. Isometsä).

0165-0327/$ - see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.jad.2008.06.013

attempts and suicidal ideation (Goodwin and Jamison, 2007). Hopelessness is a key psychological factor in suicidal behaviour (Beck, 1986; Beck et al., 1985, 1989, 1990; Brown et al., 2000). According to cognitive theories, hopelessness is seen as a trait that increases vulnerability to react to certain environmental stimuli with depression (Beck et al., 1985; Abramson et al., 1989). By contrast, in a stress–diathesis model (Mann et al., 1999) and an integrative view (Henkel et al., 2002), hopelessness is both state-related and an individual trait. In patients with BD, some earlier prospective studies have reported that hopelessness predicts future suicidal behaviour (Fawcett et al., 1990; Marangell et al., 2006; Valtonen et al., 2006), whereas others have found that hopelessness has only weak predictive power for eventual suicidal acts (Oquendo et al., 2004; Galfalvy et al., 2006). However, to our knowledge, no previous study has investigated whether level of hopelessness among patients with BD is predominantly a stable trait, or whether it merely reflects state variations during the pleomorphic course of illness.

In this study we prospectively examined group differences regarding the level of hopelessness during different phases of BD. We then investigated the degree to which hopelessness is a trait-like or state-dependent feature among BD patients.

## 2. Subjects and methods

The background and methodology of the Jorvi Bipolar Study (JoBS) have been described in detail elsewhere (Mantere et al., 2004; Mantere et al., 2008). In brief, JoBS is a collaborative research project between the Department of Mental Health and Alcohol Research of the National Public Health Institute, Helsinki, and the Department of Psychiatry, Jorvi Hospital, Helsinki University Central Hospital (HUCH), Espoo, Finland. The Department of Psychiatry at Jorvi Hospital provides secondary care psychiatric services to all residents of Espoo, Kauniainen and Kirkkonummi (261,116 inhabitants in 2002). The Ethics Committee of HUCH approved the study protocol.

All in- and outpatients with a current possible new DSM-IV BD episode in the catchment area of Jorvi Hospital were identified by using the Mood Disorder Questionnaire (MDQ) (Hirschfeld et al., 2000) during the study period of 1.1.2002–28.2.2003. After a positive screen or clinical suspicion of BD, the subject was informed about the study project and written informed consent was requested. The diagnosis of BD was made using the Structured Clinical Interview for DSM-IV Disorders, researcher version with psychotic screen (SCID-I/P) (First et al., 2001) and all available information, including psychiatric records and interviews with significant others and attending personnel. Of 191 patients, three (2%) had missing information on the Beck Hopelessness Scale at baseline, leaving 188 participants. Of these, 43% were BD I patients and 53% had a lifetime comorbidity with anxiety disorders, 51% with a substance abuse or dependence disorder and 43% with personality disorders. Patients mean age was 38 years and 47% were male. Patients had gone through on average of five lifetime illness episodes at intake (Mantere et al., 2004; Mantere et al., 2008).

The Structured Clinical Interview for DSM-IV personality disorders (SCID-II) (First et al., 1996) was used to assess diagnoses on Axis II. The cohort baseline measurements included the following observer scales: the Young Mania Rating Scale (YMRS) (Young et al., 1978), the 17-item Hamilton Depression Scale (HAM-D-17) (Hamilton, 1960) and the Scale for Suicidal Ideation (SSI) (Beck et al., 1979). The self-reported scales included the 21-item Beck Depression Inventory (BDI) (Beck et al., 1961), the Beck Anxiety Inventory (BAI) (Beck et al., 1988) and the Beck Hopelessness Scale (BHS) (Beck et al., 1974). Depressive mixed state was defined according to Benazzi and Akiskal (2001) as three or more simultaneous intra-episode hypomanic symptoms present for at least 50% of the time during a major depressive episode.

### 2.1. Follow-up

Of the 188 included patients, three (2%) died, two due to suicide (1%), between the 6- and the 18-month follow-ups. Information on hopelessness was obtained for 152/188 patients (81%) at the 6-month follow-up and for 133/185 patients (72%) at the 18-month follow-up. After baseline assessments, all patients were prospectively followed up with a life chart. The outcome and the presence of comorbid disorders were investigated at 6 and 18 months by repeated SCID-I/P interviews. In addition, the BHS and all other observer- and self-report scales were included at both the 6- and the 18-month follow-up. All medical and psychiatric records were available. Details of the follow-up methodology, e.g. use of the life chart, are reported elsewhere (Mantere et al., 2008).

Because of the similarity and the relatively small number of patients in the manic and hypomanic phases