Using the Longitudinal Interval Follow-up Evaluation (LIFE) to Assess Outcomes in Bipolar Disorder: Reliability, Validity, and Utility

V. P. Velyvis*, A. Franz, & S. V. Parikh

Centre for Addiction and Mental Health, and University Health Network, Toronto, Canada.

Abstract

Introduction: The Longitudinal Interval Follow-up Evaluation (LIFE) is a semi-structured interview and rating system for assessing the longitudinal course of psychiatric illness using a retrospective weekly rating system. Few studies have used this instrument, which offers great promise. The LIFE is the primary outcome measure for a study comparing the effects of cognitive-behavioral therapy vs. psycho-education in Bipolar Disorder (BD). This presentation will describe the variation in symptom profiles and course among patients with BD, evaluate validity and reliability, and discuss implementation issues.

Method: The first 147 bipolar subjects in the study have been interviewed every three months using the LIFE, producing 4-weekly ratings each month for depressive and another 4 for manic symptoms. To assess the validity of these ratings on the LIFE, depressive symptom ratings were compared against Hamilton Depression Rating Scale (HAM-D-29) scores on the same months, while manic symptom ratings were compared against concurrent ratings on the Clinician Administered Rating Scale - Mania (CARS-M).

Results: Data will show that Bipolar patients spend a great deal of time affected by mood symptoms despite being treated with medications for BD. The LIFE depression and mania ratings will be shown to be positively related to the HAM-D and CARS-M scores, respectively. The utility of using the LIFE versus other measures prospectively will be discussed.

Introduction

Background of the Study

• The purpose of the study was to examine the relative merits and costs of adding cognitive-behavioral therapy or psycho-education (in conjunction with regular medications) to bipolar disorder treatment protocols.

• N = 210 patients, Bipolar I or II, randomly assigned to psychoeducation or cognitive-behavioral therapy.

• This is a multi-site study including 4 sites across Canada. Each site will enroll approximately 25 subjects per year for two years.

• Single-blind (outcome), with an 18 month study follow-up period.

• A pragmatic study, with broad inclusion criteria, diverse outcome measures and naturalistic endpoint use.

Primary Hypotheses

1. CBT will result in greater improvement in manic & depressive symptoms (LIFE, HAM-D; CARS-M) as compared to psycho-education

2. Fewer disability days (LIFE/SAS-IIB) will be found with the CBT group as compared to psychoeducation

What is the LIFE? Why Use It?

• The Longitudinal Interval Follow-up Evaluation (LIFE) was developed in the 1980’s by Mania Kofler et al. (1987; Archives of Gen Psychiatry, 44, 540-546).

• It is the “gold standard” semi-structured interview and rating system for assessing long-term course and morbidity of psychiatric illness.

• Interviews are done with the client on a quarterly basis (for our study).

• Clients are prompted for their retrospective recollections of DSM-IV symptoms of depression and hypomania/mania over the previous 12 weeks.

• Clients provide sufficient detail to enable researchers to:
  - Date the onset and offset individual episodes & sub syndromal symptoms
  - Have an established way of ranking severity on a week-by-week basis using “psychiatric status ratings” (PSR), the rater uses a 6-point anchored scale to rate symptoms
  - Precisely calculate time to recovery, length of wellness intervals and time to subsequent relapse or recurrence

Results

Validity Check for LIFE: Correlations for LIFE with HAM-D 17 and CARS-M at 1 and 3 months

<table>
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<tr>
<th>Month</th>
<th>Correlation</th>
<th>N</th>
<th>Sig.</th>
<th>LIFE Depression (month 1)</th>
<th>LIFE Mania (month 1)</th>
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Conclusions

• The LIFE is a longitudinal assessment tool to assess psychiatric symptoms. It solves most of the typical limitations of research which uses cross-sectional designs. It can be used successfully in longitudinal research with bipolar patients.

• Based on our data collected over a 4 month period, the LIFE showed that:
  - The average bipolar person suffered with partial or significant symptoms of depression (LIFE PSR ≥ 4) for more than 39% of the time.
  - That is equivalent to about 12 days per month of symptoms of depression.

• Similarly, this same group on average suffered with partial or significant symptoms of mania/hypomania (LIFE PSR ≥ 3) for about 12 days per month of symptoms of mania/hypomania.

• This translates into almost 5% week per month of symptoms of mania/hypomania.

• Thus, based on our sample (N=147),
  - the total estimate of illness burden from both depressive and manic symptoms adds up to about 2 weeks out of every month (not including weeks of mixed mood states).

This accounts for about 58% of the time for bipolar patients!