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Research report

Bipolar disorder with frequent mood episodes in the New Zealand Mental Health Survey

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ABSTRACT

Background: Rapid cycling bipolar disorder has been studied almost exclusively in clinical samples.
Methods: A national cross-sectional survey in 2003–2004 in New Zealand used the Composite International Diagnostic Interview (CIDI 3.0). Diagnosis was by DSM-IV. Depression severity was assessed with the Quick Inventory of Depressive Symptoms (QIDS) and role impairment using Sheehan Scales. Complex survey analyses compared percentages and means, and used logistic regression and discrete-time survival analyses. Frequent mood episodes (FMEs) in the past 12 months (4+) were used as an indicator of rapid cycling.
Results: The lifetime prevalence of bipolar disorder (I + II) was 1.7%. Twelve-month prevalence was 1.0%: 0.3% with FME and 0.7% with No FME (1–3 episodes). Another 0.7% had no episodes in that period. Age of onset was earliest for FME (16.0 years versus 19.5 and 20.1, $p<.05$). In the past 12 months, weeks in episode, total days out of role and role impairment in the worst month were all worse for the FME group ($p<.0001$) but both the FME and No-FME groups experienced severe and impairing depression. Lifetime suicidal behaviours and comorbidity were high in all three bipolar groups but differed little between them. About three-quarters had ever received treatment but only half with twelve-month disorder made treatment contact.
Limitations: Recall, not observation of episodes.
Conclusions: Even in the community the burden of bipolar disorder is high. Frequent mood episodes in bipolar disorder are associated with still more disruption of life than less frequent episodes. Treatment is underutilized and could moderate the distress and impairment experienced.

1. Introduction

A number of cross-sectional epidemiological studies have reported on the prevalence of bipolar disorder, some reporting only on Bipolar 1 (Grant et al., 2005; Kessler et al., 1997; Weissman et al., 1996; Wells et al., 1989) whereas others include both Bipolar I and Bipolar II (Mitchell et al., 2004; Szadoczky et al., 1998) or even a broad definition of bipolar spectrum disorder (Kessler et al., 2005a,b; Oakley Browne et al., 2006b; Wells, 2006). Lifetime prevalences range from 0.5 for euphoric-grandiose Bipolar-I disorder (Kessler et al., 1997) to 5.5% for bipolar disorder in the longitudinal study of Angst and colleagues (Angst, 1998). These studies provide evidence on the disability associated with bipolar disorder in the community. Nonetheless, most cross-sectional studies have not been designed to collect information on the frequency of mood episodes, so it has not been possible to see to what extent the disability results from rapid cycling or from the severity of mood episodes regardless of frequency.

Rapid cycling is a DSM-IV course specifier, based on frequency of mood episodes, for both Bipolar-I and Bipolar-II

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disorders. To meet criteria for rapid cycling requires four or more mood episodes within a year. These episodes may be of mania/hypomania (minimum duration of 4 days) or of depression (minimum duration of 2 weeks) with the count summed regardless of polarity (Bauer et al., 2008).

There have been a number of clinical studies of rapid cycling, many of which include some years of follow-up (Azorin et al., 2008; Coryell et al., 2003; Cruz et al., 2008; Judd et al., 2003, 2002; Kupka et al., 2003, 2005). The most recent overview (Bauer et al., 2008) indicates an overall prevalence of rapid cycling of 12–24% among bipolar patients and notes that it is associated with a relatively poor response to pharmacological treatment. Some studies have found more rapid cycling among women and Bipolar-II patients, and earlier age of onset among those with rapid cycling. In their long-term follow-up study, Coryell et al. (2003) found higher depressive morbidity and suicidal behaviour among rapid cyclers.

Only studies in the community can establish whether the results from clinical studies apply to the population and not just to those reaching treatment services. The first such paper which has attempted to investigate rapid cycling in the community used data from the National Comorbidity Replication (NCS-R), a cross-sectional survey in the US (Nierenberg et al., 2009). Although full criteria for DSM_IV rapid cycling were not operationalized in the interview, the frequency of mood episodes of either polarity in the past 12 months was assessed using Version 3 of the Composite International Diagnostic Interview (CIDI 3.0). Among those with bipolar disorder (I or II), the presence of four or more mood episodes in the past 12 months was used as a proxy indicator of rapid cycling and referred to as frequent mood episodes (FMEs). Respondents with FME were compared with those with fewer than four episodes in the past 12 months, and also with those meeting lifetime criteria for bipolar disorder but without a recent episode. FME was common — half of those with any bipolar disorder episode in the past 12 months had FME. Childhood risk factors, comorbidity and current socio-demographics did not differ between FME and No-FME groups, although both groups differed from those without bipolar disorder. There were some differences in clinical severity and role impairment for mania and hypomania.

The New Zealand Mental Health Survey (NZMHS), like the NCS-R, also used the CIDI 3.0 for assessment. Using a broad definition of bipolar disorder (I, II and subthreshold), polarity was strongly associated with interference with life for the worst month in the past 12 months, as assessed using Sheehan Scales for the role areas of household maintenance, work or study, intimate relationships and social life. Those with depression only had a mean interference across all four role areas of 5.4 (95% CI 4.9, 6.3), those with mania/hypomania only 4.0 (3.5, 4.5) whereas those with both depression and mania/hypomania had mean interference of 7.4 (7.0, 7.7) (Wells, 2006). Because the low interference with life for mania/hypomania might have resulted from the inclusion of the subthreshold cases, these analyses were re-run for Bipolar I and Bipolar II alone with similar results although slightly higher interference levels: 5.7 (4.9, 6.4) for depression alone, 4.6 (3.8, 5.5) for mania/hypomania alone, and 7.5 (7.0, 7.9) for both (unpublished). These results suggest that perhaps more frequent mood episodes (i.e. rapid cycling) account for the higher interference with life for cases with both polarities within 12 months.

With rapid cycling assessed by the proxy of four mood episodes in the past 12 months (frequent mood episodes — FMEs), this paper uses data from the NZMHS to report on:

- The prevalence of FME from a national community sample
- The age of onset and lifecourse of bipolar disorder in relation to FME
- Childhood risk factors
- Lifetime comorbidity
- Suicidality subsequent to the onset of bipolar disorder
- Current socio-demographic correlates
- Lifetime and twelve-month treatment
- Severity and role impairment in the past 12 months

2. Methods

Detailed reports of the sample and interview have already been presented (Wells et al., 2006a,b).

2.1. Sample

The New Zealand Mental Health Survey was a national cross-sectional survey with a multi-stage probability sample of New Zealanders aged 16 years or more living in permanent private dwellings. The Primary Sampling Units were 1320 small census units systematically sampled throughout the whole country. Within each meshblock, households were selected and then one person aged 16 years or more was selected per household, using a Kish grid (Kish, 1965). The response rate was 73.3%, resulting in a sample size of 12,992.

Field work was carried out in 2003–2004. Ethics permission was granted by all 14 regional health ethics committees and written informed consent was obtained from all participants. There was no financial recompense for participation.

2.2. Interview

Computer assisted personal interviews were carried out face-to-face using the World Mental Health Surveys CIDI 3.0 (http://www.hcp.med.harvard.edu/wmhcidi) with some non-diagnostic modifications (http://www.moh.govt.nz/moh.nsf/by+unid/3195F8D3155E1C2ACC2571FC00131A6D?Open). Some sections were omitted to keep the interview under 90 min on average.

Part 1 of the interview contained core diagnoses, including depression and mania/hypomania, suicidality, treatment and socio-demographic correlates. Part 2 included additional diagnoses and assessment. Respondents who met lifetime criteria for any Part 1 diagnosis, or who reported ever having a suicide plan or attempt or hospitalisation for mental health problems all went on to Part 2, as did a random sub-sample of other respondents ($N = 7435$).

2.3. Diagnoses

All diagnoses reported here are DSM-IV diagnoses based on the CIDI 3.0.

2.3.1. Bipolar disorder

DSM-IV criteria were used to define mania, hypomania and major depressive episode, except that criteria for a Mixed Episode