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Research report

The prevalence and disability of bipolar spectrum disorders in the US population: re-analysis of the ECA database taking into account subthreshold cases

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Abstract

Background: Despite emerging international consensus on the high prevalence of the bipolar spectrum in both clinical and community samples, many skeptics contend that narrowly defined bipolar disorder with a lifetime rate of about 1% represents a more accurate estimate of prevalence. This may in part be due to the fact that higher figures proposed for the bipolar spectrum (5–8%) have not been based on national data and have not included all levels of manic symptom severity. In the present secondary analyses of the US National Epidemiological Catchment Area (ECA) database, we provide further clarification on this fundamental public health issue. **Methods:** All respondents in the first wave (first interview) of the ECA household five site sample ($n = 18,252$) were classified on the basis of DSM-III criteria into lifetime manic and hypomanic episodes, as well as those with at least two lifetime manic/hypomanic symptoms below the threshold for at least 1 week duration (subsyndromal manic symptoms [SSM] group). Odds ratios were calculated on lifetime service utilization for mental health problems, measures of adverse psychosocial outcome, and suicidal behavior compared to subjects with no mental disorders or manic symptoms. **Results:** As originally reported nearly two decades ago by the primary investigators of the ECA, the lifetime prevalence for manic episode was 0.8%, and for hypomania, 0.5%. What is new here is the inclusion of subthreshold SSM subjects, which accounted for 5.1%, yielding a total of 6.4% lifetime prevalence for the bipolar spectrum. All three (manic, hypomanic and SSM) groups had greater marital disruption. There were significant increases in lifetime health service utilization, need for welfare and disability benefits and suicidal behavior when the SSM, hypomanic and manic subjects were compared to the no mental disorder group. Suicidal behavior was non-significantly highest in the hypomanic (bipolar II) group. Otherwise, hypomanic and manic groups had comparable level of service utilization and social disruption. **Limitations:** Comorbid disorders, which might influence functioning, were not included in the present analyses. **Conclusion:** These secondary analyses of the US National ECA database provide convincing evidence for the high prevalence of a spectrum of bipolarity in the community at 6.4%, and indicate that subthreshold cases are at least five times more prevalent than DSM-based core syndromal diagnoses at about 1%. These SSM subjects, who met the criteria of “caseness” from the point of view of harmful dysfunction, are of great theoretical and public health significance.

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1. Introduction

There is increasing international consensus based on a review of the evidence-based literature that bipolarity involves more than classical bipolar I disorder, that indeed its most common manifestations involve bipolar II and softer hypomanic expressions with various admixtures of depression (summarized in Akiskal et al., 2000; Akiskal, 2002). The current estimates place the community prevalence of the bipolar spectrum at a minimum of 5% (Lewinsohn et al., 1995; Angst, 1998; Szadoczky et al., 1998). The concept of the spectrum and its high prevalence has been greeted with skepticism on methodologic grounds (Baldessarini, 2000; Soares and Gershon, 2000), and a plea has been made to limit bipolarity to narrowly defined bipolar I and bipolar II. The conventional, usually cited, rates of 1%, based on the US Epidemiologic Catchment Area or ECA database (Regier et al., 1984, 1994) and 1.6% from the National Comorbidity Study or NCS (Kessler et al., 1994) are usually invoked to justify the relative “rarity” of bipolarity. Given the fact that the higher estimates placing bipolarity 3–5 times higher than the conventional rates do not derive from national data (Lewinsohn et al., 1995; Angst, 1998; Szadoczky et al., 1998), we felt that national data were needed to sway the skeptics. Accordingly, we have conducted what we believe to be the first analyses—deriving from the US National ECA database—on both manic/hypomanic and subsyndromal manic/hypomanic symptoms.

Bipolar disorder is a serious illness of major public health importance, which creates havoc and suffering in the afflicted as well as their families and loved ones. As such there is a need to determine accurately the full extent that bipolar illness is present in the general population and the degree of psychosocial impairment associated with it. In addition, prior attempts to examine psychosocial outcomes in bipolar disorder have largely dealt with such variables as chronicity and suicide in follow-up studies (Coryell et al., 1998; Angst and Preisig, 1995), but a detailed analysis of psychosocial dysfunction in a national cohort of bipolarity and its spectrum has not yet been conducted.

Recently, our research group (Judd et al., 2002, 2003, in press a,b) has reported a series of in-

vestigations focusing on the long-term symptomatic status of a large clinical cohort of bipolar I and bipolar II patients being followed by the NIMH Collaborative Depression Study (Katz and Klerman, 1979; Katz et al., 1979). We found that bipolar patients were symptomatically ill from these illnesses approximately half the time during long-term follow-up. Their symptom status frequently fluctuated and shifted in both polarity and severity. The longitudinal symptomatic course of bipolar patients was dominated, on a 3:1 basis, by moderate and subsyndromal affective symptoms compared with the syndromal level of manic and major depressive episodes; in the aggregate, these data support the conclusion that the longitudinal symptomatic expression of bipolar disorders is dimensional rather than categorical in nature, which means that when any level of affective symptoms are observed in bipolar patients it indicates that the bipolar illness is present and active.

What about nonclinical samples? We contend that to report lifetime prevalence of manic symptoms by focusing only on manic and/or hypomanic symptoms without including the prevalence of the subsyndromal manic/hypomanic symptoms, underestimates the true prevalence of the bipolar diathesis and spectrum. To test this hypothesis we conducted secondary analyses on the ECA household sample, predicting the following: (1) lifetime prevalence of subsyndromal, hypomanic, and manic symptoms in the aggregate, will exceed that which has been reported previously from the same database for the general population, (2) each level of bipolar symptom severity, even subsyndromal manic/hypomanic symptoms, will be associated with significantly increased lifetime health service use, need for welfare and disability benefits and suicidal behavior compared to subjects with no mental disorders or manic symptoms.

2. Methods

2.1. Subjects

The analysis sample is derived from the five data collection sites of the NIMH Epidemiologic Catchment Area Program (Baltimore, MD, Durham, NC, Los Angeles, CA, New Haven, CT, and St. Louis,

MO). Sampling methodology, human subject consent procedures, study design, survey methods, demographic characteristics and prevalence of mental disorders of the sample have been described in detail in other reports (Eaton et al., 1984; Regier et al., 1984, 1994; Eaton and Kessler, 1985). Respondents' DSM-III diagnoses are obtained from recorded responses to the first structured interview (Wave I) conducted by trained lay interviewers using the Diagnostic Interview Schedule (DIS, Robins et al., 1981a,b). From these data, computer-assisted algorithms assigned DSM-III diagnoses [American Psychiatric Association (APA), 1980]. The DIS specifies a standardized threshold to determine if a manic symptom is clinically relevant and should be recorded as follows: It must be present for at least 1 week, with respondents being so happy, excited or high that they got into trouble, or their family or friends were worried about it, or a doctor said they were manic in need of psychiatric treatment.

2.2. Definitions of diagnostic categories

All respondents from the ECA household sample ($n = 18,252$) were classified into four mutually exclusive categories based on the presence, severity or absence of manic symptoms or episodes. These groups are derived from lifetime prevalence data from the first ECA interview (Wave I).

Manic episode (M): Persons in this category had a lifetime diagnosis of a full-blown manic episode.

Hypomanic episode (H): Persons in this category had a lifetime diagnosis of a hypomanic episode, but could not have a diagnosis of a lifetime manic episode.

Subsyndromal symptoms of mania (SSM): Persons in this group experienced two or more lifetime manic symptoms without meeting the full criteria for a hypomanic episode or manic episode.

The foregoing three groups (M, H, and SSM) constitute the "manic spectrum." They were contrasted with:

No mental disorder or manic spectrum symptoms (comparison group): Persons in this group reported no lifetime mental disorder or any manic/hypomanic or subsyndromal symptoms (excludes the previous three groups).

2.3. Statistical analyses

The ECA study used an efficient, multi-stage sampling design. Weighting procedures used in the ECA program adjust for differences in respondents' demographic characteristics, based on the likelihood of being selected for interview from the mental health catchment areas that were included in the study. The weighting procedure also adjusts to make the sample representative of the 1980 US population in terms of age, gender, race/ethnicity, education, and socio-economic status.

SUDAAN software (CROSSTAB, DESCRIPT, and RTI LOGIT routines) were used to estimate variances for prevalence, means, and logistic regressions. Logistic regression analyses were performed to examine the association between diagnostic groups and a series of dependent variables representing service utilization for emotional, substance abuse, and mental health problems; participation in public assistance programs; and suicidal ideation and behavior. All dependent variables were constructed so they could take on only two possible values signifying either the presence or the absence of the attribute or outcome under consideration. SUDAAN uses Taylor Series linearization to estimate standard errors and the statistical significance of regression coefficients, after controlling for group differences in age, gender, race/ethnicity, and study site. Odds ratio estimates, a measure of association between M, H or SSM status and the dependent variables, were then obtained by exponentiating logistic regression coefficients. Odds ratios approximate the relative risk of the presence of a dependent variable that is attributable to membership in one diagnostic group compared to another.

3. Results

3.1. Lifetime prevalence

The lifetime prevalence of manic symptoms in the ECA household sample is shown in Table 1. The lifetime prevalence of manic symptoms in the general population totals 6.4%, with the vast majority of symptoms in the subthreshold (SSM) category at 5.1%, compared to 0.8% for manic episode, and

Table 1

Lifetime prevalence of manic symptoms and disorders based on Wave 1 ECA community sample ($n = 18,252$)

Lifetime manic symptom/disorder group	n^d	Lifetime prevalence ^d (%)	Standard error
Lifetime manic spectrum groups			
Manic episode ^a	146	0.8	0.09
Hypomanic episode ^b	87	0.5	0.06
Subsyndromal manic/hypomanic symptoms (SSM) ^c	940	5.1	0.21

^a Persons with a lifetime manic episode.^b Persons with three or more simultaneous symptoms of mania, but not qualifying for a manic episode.^c Persons who experienced two or more simultaneous symptoms of mania during their lifetime, but not qualifying for a manic or hypomanic episode.^d Number and prevalence are weighted to adjust for sampling bias.

0.5% for hypomanic episode. (The respective rates of 0.8 and 0.5% are the same as reported in earlier ECA publications (Regier et al., 1984, 1994) and refer to DSM-III diagnosis for bipolar I and bipolar II (bipolar disorder NOS).

3.2. Demographic characteristics

The demographic characteristics of the sample are shown in Table 2. Here the demographic characteristics of gender, mean age, education (number of years completed) and marital status are contrasted between

the three manic spectrum groups and the no mental disorder comparison group. The demographic characteristics show younger age and greater marital disruption in the manic spectrum.

3.3. Lifetime prevalence rates of health service utilization, public assistance and suicidal behavior

Lifetime prevalence for the three general categories of adverse psychosocial outcome of utilization of health services for mental health or drug problems, the need for public assistance and suicidal

Table 2

Demographic characteristics of the three manic symptoms and the no mental disorder groups based on lifetime status at Wave 1 ECA community sample

Demographic characteristic	Comparison group: no lifetime mental disorder or manic symptoms ^a ($n = 16,347$)	Lifetime subsyndromal manic/hypomanic symptoms ($n = 940$)	Lifetime hypomanic episode ($n = 87$)	Lifetime manic episode ($n = 146$)
Gender				
Male (% , S.E.)	48 (0.5)	48 (2.1)	38 (6.9)	42 (5.3)
Female (% , S.E.)	52 (0.5)	52 (2.1)	62 (6.9)	58 (5.3)
Index age (mean, S.E.)	43.5 (0.19)	34.7 (0.59)	33.8 (1.29)	32.3 (1.14)
Education—years completed (mean, S.E.)	11.7 (0.04)	12.0 (0.13)	12.6 (0.35)	11.8 (0.29)
Marital status				
Married/living together (% , S.E.)	58 (0.5)	38 (2.0)	34 (6.8)	40 (5.1)
Widowed (% , S.E.)	9 (0.2)	5 (0.7)	4 (1.9)	4 (2.0)
Separated (% , S.E.)	4 (0.2)	6 (0.8)	6 (2.3)	6 (1.7)
Divorced (% , S.E.)	7 (0.3)	11 (1.0)	15 (3.8)	13 (3.0)
Never married (% , S.E.)	23 (0.4)	40 (2.0)	42 (6.4)	37 (5.1)

^a Persons with no lifetime manic, hypomanic, or major depressive episode or lifetime dysthymia, also not meeting the criteria for subsyndromal manic/hypomanic symptoms.

Table 3

Prevalence rates^a for lifetime health service utilization, public assistance, and suicidal behavior of the three manic symptom and no mental disorder groups based on lifetime status at Wave 1 ECA community sample

Health service utilization, public assistance, and suicidal behavior variables	Comparison group: no lifetime mental disorder or manic symptoms (<i>n</i> = 16,347) (% , S.E.)	Lifetime subsyndromal manic/hypomanic symptoms (<i>n</i> = 940) (% , S.E.)	Lifetime hypomanic episode (<i>n</i> = 87) (% , S.E.)	Lifetime manic episode (<i>n</i> = 146) (% , S.E.)
Lifetime health service utilization for emotional, drug/alcohol, or mental health problem				
Outpatient treatment	19 (0.4)	48 (2.2)	70 (6.0)	76 (4.6)
Medical outpatient treatment	10 (0.3)	29 (2.0)	52 (6.5)	60 (5.3)
Psychiatric outpatient treatment	12 (0.3)	36 (2.1)	53 (6.5)	57 (5.0)
Emergency room treatment	2 (0.2)	10 (1.5)	32 (7.8)	28 (5.0)
Psychiatric inpatient treatment	3 (0.2)	11 (1.4)	26 (5.9)	29 (5.1)
Lifetime public assistance				
Welfare benefits	4 (0.2)	8 (0.9)	9 (3.3)	10 (2.3)
Disability benefits	5 (0.2)	7 (1.0)	7 (2.6)	10 (3.5)
Lifetime suicidal behavior				
Thoughts of death	17 (0.4)	53 (1.9)	80 (5.0)	67 (5.1)
Thoughts of committing suicide	7 (0.3)	27 (1.8)	60 (6.6)	49 (5.4)
Attempted suicide	2 (0.1)	8 (1.0)	34 (6.8)	24 (5.0)

^a Prevalences are weighted to adjust for sampling bias.

behavior are compared for the four groups in Table 3. As can be seen, in general, the prevalence of negative outcomes is much higher in the three manic spectrum groups than in the no mental disorder comparison group. There is an overall gradient of increasing lifetime prevalence of negative psychosocial consequences starting with the no mental disorder group in the first column who had the lowest prevalence rates extending next to the SSM, followed by the hypomanic and manic episode groups.

3.4. Adjusted odds ratios comparing lifetime prevalence of health service use, public assistance and suicidal behavior

In Table 4 the adjusted odds ratios are shown comparing lifetime prevalences of adverse outcome for the three manic spectrum groups versus the no mental disorder group. In the first column the prevalence for SSM subjects is compared with the no mental disorder group and all 10 outcome variables of health service utilization, public assistance and suicidal behavior are significantly greater than in the comparison group at the $P < 0.001$ level. All three

manic spectrum groups, including SSM, are significantly higher in dysfunction on these outcome variables, when contrasted with the no mental disorder comparison group; odds ratios are particularly high in the hypomanic and the manic episode subjects.

4. Discussion

4.1. Prevalence of bipolarity in the community

Two studies, one based on community subjects in the Zurich canton (Angst, 1998) and the other based on patients in general medical practice in Hungary (Szadosky et al., 1998) have reported, respectively, lifetime rates of 5.5% (DMS-IV) and 5.1% (DSM-III-R) for bipolar disorder; the Lewisohn et al. study (1995) in Oregon, USA, conducted on juvenile community subjects, reported a rate of 5.5%. The present analyses, reporting a lifetime prevalence of 6.4% (DSM-III), have the virtue of deriving from a representative national sample (US) sample. As in the previous studies, we found that subthreshold manic/hypomanic symptoms (at 5.1%) were four

Table 4

Adjusted odds ratios^a comparing lifetime health service utilization, public assistance, and suicidal behavior of three manic symptom groups vs. no mental disorder group based on lifetime status at Wave 1 ECA community sample

Health service utilization, public assistance, and suicidal behavior variables	Lifetime subsyndromal manic/hypomanic symptoms vs. no mental disorder (<i>n</i> = 940 vs. 16,347) OR ^a (95% CI ^b), Signif.	Lifetime hypomanic episode vs. no mental disorder (<i>n</i> = 87 vs. 16,347) OR ^a (95% CI ^b), Signif.	Lifetime manic episode vs. no mental disorder (<i>n</i> = 146 vs. 16,347) OR ^a (95% CI ^b), Signif.
Lifetime health service utilization for emotional, drug/alcohol, or mental health problem			
Outpatient treatment	4.0 (3.5–4.5), <i>P</i> < 0.001	10.5 (6.7–16.4), <i>P</i> < 0.001	14.0 (9.7–20.1), <i>P</i> < 0.001
Medical outpatient treatment	3.8 (3.3–4.4), <i>P</i> < 0.001	10.2 (6.8–15.5), <i>P</i> < 0.001	13.9 (10.1–19.2), <i>P</i> < 0.001
Psychiatric outpatient treatment	3.9 (3.4–4.5), <i>P</i> < 0.001	8.3 (5.5–12.6), <i>P</i> < 0.001	9.4 (6.8–12.9), <i>P</i> < 0.001
Emergency room treatment	5.0 (3.8–6.6), <i>P</i> < 0.001	21.3 (12.9–35.2), <i>P</i> < 0.001	16.5 (10.9–25.1), <i>P</i> < 0.001
Psychiatric inpatient treatment	4.8 (3.9–6.0), <i>P</i> < 0.001	16.4 (10.1–26.5), <i>P</i> < 0.001	16.1 (11.2–23.0), <i>P</i> < 0.001
Lifetime public assistance			
Welfare benefits	2.0 (1.5–2.5), <i>P</i> < 0.001	2.4 (1.1–5.1), <i>P</i> < 0.05	2.1 (1.2–3.7), <i>P</i> < 0.01
Disability benefits	2.0 (1.5–2.6), <i>P</i> < 0.001	2.6 (1.2–5.8), <i>P</i> < 0.05	3.6 (2.1–6.1), <i>P</i> < 0.001
Lifetime suicidal behavior			
Thoughts of death and dying	5.4 (4.8–6.2), <i>P</i> < 0.001	17.6 (10.7–29.0), <i>P</i> < 0.001	9.4 (6.8–13.1), <i>P</i> < 0.001
Thoughts of committing suicide	4.5 (3.9–5.3), <i>P</i> < 0.001	17.6 (11.6–26.7), <i>P</i> < 0.001	11.5 (8.4–15.8), <i>P</i> < 0.001
Attempted suicide	4.3 (3.3–5.5), <i>P</i> < 0.001	25.1 (15.9–39.6), <i>P</i> < 0.001	14.3 (9.7–21.1), <i>P</i> < 0.001

^a Odds ratios are adjusted for gender, age, race/ethnicity, and site.

^b 95% confidence interval.

times more common than combined hypomanic (of 0.5%) and manic (at 0.8%) episodes. DSM-IV (American Psychiatric Association, 1994) postulates a hypomania duration of 4 days, and international consensus (Akiskal et al., 2000) has further lowered that threshold to 2 days. Indeed, in a clinical sample, we have found that the demographic and clinical features, such as long-term symptomatic status, course characteristics and chronicity were no different when hypomanias in Bipolar-II patients were defined by brief (2–6 days) vs. longer (>7 days) duration (Judd et al., in press a). Therefore our revised rates of 6.4% for the U.S. population are relatively “conservative” estimates (DSM-III duration requirement of 1-week for the three manic, hypomanic and subsyndromal manic/hypomanic groups was observed).

Including brief hypomanias of 1–3 day duration, Angst (1998) reported a total bipolar spectrum prevalence of 8.3% (5.5% plus 2.8%). Building upon our previous work (Judd et al., 2002, 2003, in

press a,b), reporting that all levels of manic symptom severity, including subsyndromal manic symptoms, commonly fluctuate within the same patient during the long-term course of bipolar disorders, we conclude that the present data add further support that bipolar disorders are expressed dimensionally by a full range of severity of manic symptoms, ranging from syndromal to subsyndromal levels. It is obvious that epidemiological surveys, based on narrow criteria which have focused exclusively on manic and/or hypomanic episodes only, have underestimated the prevalence of the bipolar diatheses in the population. We have reported herein that the prevalence of bipolar disorder in the ECA household sample is over 6%, rather than the 1.3% reported in prior analysis of the ECA sample (Regier et al., 1984, 1994) or the 1.6% reported by the NCS (Kessler et al., 1994). Cross-national data reported by Weissman et al. (1996) range from 0.3 to 1.5%, likewise a gross underestimate in that they exclude subthreshold spectrum diagnoses. That our data,

especially the 5.5% for subthreshold hypomania/mania, reflect a prevalent bipolar diathesis in the community, can be further gleaned from epidemiologic studies of student populations in Albany, USA (Depue et al., 1981), Wisconsin, USA (Eckblad and Chapman, 1986), and Italy (Placidi et al., 1998; Akiskal et al., 1998), which have reported rates for cyclothymic and hypomanic traits in an average of 6.0% of the subjects surveyed.

4.2. Adverse Psychosocial Correlates

We found that SSM, which we defined as two or more manic symptoms under the threshold of mania or hypomania, compared to subjects with no mental disorder or manic symptoms, are associated with significant increases in health service use, a need for public assistance, and even in suicidal behavior. Subjects with SSM had four times higher suicide attempt rates with a lifetime prevalence of 8%, compared to 2% for the no-mental disorder comparison group. The association of significant adverse psychosocial outcome with the SSM subjects indicates that these symptoms are associated with “harmful dysfunction”, a criterion used to determine when a condition should be considered a disorder (Wakefield, 1992). We conclude that subsyndromal manic symptoms are a clinically relevant, integral component of the longitudinal symptomatic picture of bipolar disorders and as such should be included when estimating the lifetime prevalence of the bipolar diathesis in any sample studied. As anticipated, prevalence of adverse psychosocial consequences associated with hypomanic episode subjects was significantly greater than the prevalences in subjects with SSM. However, in line with the first report on bipolar II (Dunner et al., 1976) and subsequent work by Rihmer and Pestalicy (1999), suicidal tendencies are higher in this bipolar subtype. Nonetheless, there were virtually no statistically significant differences between lifetime prevalence of service use or suicidal behavior between manic episode and hypomanic episode subjects, apart from thoughts of death and dying, which were significantly higher for the hypomanic (bipolar II) subjects. This would suggest that psychosocial disability, as measured by all three classes of the 10 variables we evaluated, were comparable in manic (bipolar I) and

hypomanic (bipolar II) subjects. We conclude, as have others (Vieta et al., 1997), that bipolar II is not merely “the lesser” of the bipolar disorders, but is a more serious illness than previously thought.

The foregoing data and considerations are in favor of a “broad”—rather than “narrow”—conceptualization of bipolar disorder, with a lifetime prevalence for the spectrum above 6% (vs. 1.3–1.6% for core bipolarity). Curiously, the originators of the ECA (Narrow et al., 2002) have recently expressed themselves in favor of further narrowing of the boundaries of mental disorders, on the basis of “clinical significance”, shrinking bipolar disorders to 0.7% (0.5% for BPI and 0.2% for BPII) of the U.S. population.

4.3. Limitations

The methodological strengths and weaknesses of the ECA database to answer questions of clinical relevance have been discussed elsewhere (Judd et al., 1994, 1997). Although the diagnostic categories of bipolar I and bipolar II have undergone relatively minor revisions over the years; the definitions of manic symptoms are unchanged. Thus, strictly speaking, our findings pertain to a manic/hypomanic/subsyndromal symptom (SSM) spectrum, although given that depressive manifestations are known to be nearly universal in manic and hypomanic individuals, overlap with the bipolar spectrum must be considerable. In the ECA database, as reported by Regier et al. (1990), both the bipolar I and bipolar II groups have relatively high prevalence of comorbid alcoholism, drug abuse, and major depressive episodes. Thus, the high prevalence of psychosocial impairment in our three manic spectrum groups may have been influenced in part by these comorbid disorders, as well as the presence of manic symptoms which are the focus of these analyses. It is likely that SSM occurs frequently between episodes of mania and hypomania, at which times these symptoms are either prodromal or residual to episodes of mania or hypomania. Whether SSM really heralds a future onset of manic or hypomanic episodes will be the subject of future analyses from the large clinical sample of bipolar patients.

5. Conclusions

The following are the conclusions that can be drawn from these analyses: (1) the lifetime prevalence of subthreshold hypomanic/manic symptoms is substantially higher than that based only on manic or hypomanic episodes. (2) The structure of bipolar disorder in the population appears to be dimensional in nature and as such, all levels of manic spectrum severity present in the population should be included in estimating the true prevalence of bipolarity in the general population. (3) Lifetime subsyndromal manic symptoms are three times more common than manic or hypomanic symptoms, and seem to reflect the high lifetime prevalence of the bipolar diathesis in the general population. (4) Subsyndromal manic symptoms are not benign; they meet the criteria for harmful dysfunction by being associated with significant increases in lifetime service use for mental health problems, need for welfare and disability benefits, lifetime suicidal ideation and suicide attempts in comparison to community subjects with no mental disorders or subsyndromal manic symptoms. (5) Hypomanic symptoms are associated with significantly higher lifetime prevalences in all three categories of psychosocial impairment than subsyndromal manic symptoms. (6) Manic and hypomanic episodes appear to be associated with relatively comparable levels of increased service use and psychosocial disability. (7) The suicide attempt rate in hypomanic subjects (bipolar II) is high, with a lifetime prevalence of 34%, which is higher than the 24% seen in manic subjects (bipolar I); however, this difference was not significant. (8) Bipolar II (hypomania) is not a benign condition—it is comparable in terms of adverse psychosocial consequences to bipolar I.

The findings summarized above support all of our *a priori* hypotheses concerning the elevated lifetime prevalence of the bipolar diathesis and the increase in service utilization and psychosocial impairment associated with manic symptoms at all levels of severity. It does appear that hypomania, which is usually part of a recurrent bipolar II illness, impairs because of its chronicity and instability with high potential for suicidality whereas bipolar I, which represents the severest expression of bipolarity, impairs as a correlate of the severity of manic

episodes. The two subforms of bipolar disorder appear equivalent in terms of overall illness burden for the patient. The finding of a step-wise increase in service utilization and psychosocial impairment going from comparison subjects without mental disorders to those with subthreshold manic/hypomanic symptoms and then to hypomanic and manic groups, upholds our central hypothesis about the clinical relevance of subthreshold bipolarity.

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