

Diagnostic Implications of Informant Disagreement for Manic Symptoms

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Abstract

Objective: This study examines diagnoses that occur in an outpatient sample when both parent and teacher endorse significant manic symptoms and when only a parent observes them. We hypothesized that the diagnosis of mania/bipolar (BP) disorder would occur when there is parent/teacher concordance on high mania symptom scores.

Methods: Subjects were 911 5–18-year-old psychiatrically diagnosed youths with caregiver and teacher completed Child Mania Rating Scales (CMRSs) and Achenbach parent and teacher forms. Parent–teacher concordance on the CMRS was defined as both informants ≥ 75 percentile on the CMRS; discordance on the CMRS was defined as parent ≥ 75 percentile and teacher ≤ 25 percentile. Logistic regression examined factors associated with a child’s parent and teacher ratings concordant for high CMRS total scores.

Results: Correlation between parent CMRS (CMRS-P) and teacher CMRS (CMRS-T) scores was $r=0.27$ ($p<0.000$). Correlation between the CMRS-P and the Child Behavior Checklist “bipolar/dysregulation” phenotype was $r=0.757$ and between the CMRS-T and Teacher Report Form “bipolar/dysregulation” phenotype was $r=0.786$. A total of 66 (7.3%) of the 911 children were diagnosed with BP I ($n=20$) or II ($n=3$) or BP disorder not otherwise specified (BPNOS, $n=43$). If the CMRS-P score was ≥ 15 , 14.7% (vs. 4.4%) had any BP (odds ratio: 3.6; 95% confidence interval: 2.1, 6.2). Teacher agreement or disagreement did not add to diagnostic accuracy for students with BP I or II. BPNOS was more common in children with concordant high CMRS-P and CMRS-T ratings (10.5% vs. 4.8%) but the difference was not statistically significant. However, logistic regression indicated 10-fold greater odds of both parents and teachers, providing high CMRS ratings among children who were diagnosed with externalizing disorders (attention-deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder, or any combination of these). Children with internalizing disorders (anxiety and depressive disorders) were 3.7 times more likely to have discordant CMRS-P/CMRS-T ratings.

Conclusion: Parent and teacher concordance on high mania rating scale scores was most associated with externalizing disorders, and discordance was most associated with internalizing disorders.

Background

ONLY MODEST LEVELS of agreement are found between caregivers, youths, and teachers when describing the mood and behavior of children and adolescents. Meta-analyses have found correlations in the 0.2–0.3 range (Achenbach et al. 1987) between the various informants. However, as information provided by each person typically meets high standards for internal consistency reliability and retest stability (Achenbach and Rescorla 2001), poor reliability is not the explanation.

Reasons for poor agreement have included the fact that children’s behavior changes with settings and contexts, that informants interpret symptom statements in terms of behaviors that are most relevant for their daily concerns, and that, depending on the disorder, one informant may simply be more knowledgeable than another (Hartley et al. 2011; Gadow et al. 2004; De Los Reyes and

Kazdin 2005). Jensen et al. (1999) have suggested that discrepant diagnoses (those reported by one but not the other informant) may reflect meaningful clinical conditions and that further research is needed to determine the diagnostic impact of informant discrepancy.

Several studies have examined parent–child concordance in mania or manic symptoms (Thuppall et al. 2002; Tillman et al. 2004; Youngstrom et al. 2004; Biederman et al. 2009). As with other disorders, rates of parent–child concordance are relatively low. However, investigators have drawn somewhat different conclusions. In one case, using interviews, researchers said that qualitative information about mania was no different in instances in which the child did or did not agree with the parent (Biederman et al. 2009) and concluded that if the manic syndrome looked the same, the child informant did not add anything. In another, manic symptoms reported by the child were felt to substantially add to

diagnosis (Tillman et al. 2004). In a third, youth-contributed symptoms concurred less often with clinician ratings than parent reports did (Youngstrom et al. 2004) and were thus felt to be less relevant. Finally, when parent, teacher, and child agreement on manic symptoms was examined using rating scales, results revealed a greater likelihood for serious and possibly manic disorders to be diagnosed if at least two of three informants agreed about the presence of manic symptoms (Thuppall et al. 2002). Unfortunately, there is some degree of tautology to these conclusions as the clinician making the diagnosis puts more weight on parent information if a structured interview is the diagnosis gold standard or on information if there is concordance between at least two informants.

Four studies have focused on the significance of teacher information related to a diagnosis of mania (Geller et al. 1998a; Carlson and Youngstrom 2003; Youngstrom et al. 2004, 2008). Geller and colleagues (1998a) used old subscales from the Teacher Report Form (TRF) (Achenbach and Edelbrock 1983) and found higher aggression subscale scores in children diagnosed with mania compared with those with attention-deficit/hyperactivity disorder (ADHD). In psychiatrically hospitalized children with a variety of disorders, the correlation between parent and outpatient teacher mania ratings on the Child Symptom Inventory (Gadow and Sprafkin 1994) was $r=0.3$ (Carlson and Youngstrom 2003). Further, parent/teacher agreement about manic symptoms prior to hospitalization predicted a greater likelihood of manic symptoms being observed by hospital staff than in children for whom only parents but not teachers reported manic symptoms. This was one of the few studies in which the second set of observations, namely those made by the nurses and psychologist rater during hospitalization, was completely independent of the first.

In outpatients, Youngstrom et al. (2004) found a correlation of $r=0.37$ between clinician ratings on the Young Mania Rating Scale (Young et al. 1978) and the externalizing T scores from the TRF (Achenbach and Rescorla 2001). In that study, however, the goal was to select the most appropriate informant for mania. Relatively poor agreement was found between four different parent and teacher rating scales (Youngstrom et al. 2008) and different factors emerged on teacher rating scales than those derived from parent and youth self-report. The authors concluded that although teachers are able to identify youths having behavior problems, the teacher report was not useful for diagnostic purposes and that low scores should not automatically invalidate concerns reported by others.

The present study uses the long form of the Child Mania Rating Scale (CMRS) (Pavuluri et al. 2006), obtained from parents and teachers, to examine rates of best-estimate diagnosis when both informants agree about the presence of manic symptoms versus instances in which symptoms are reported only by parents.

The hypothesis of this study was that the diagnosis of mania would be made more often in situations in which there was concordance between parents and teachers on the high scores on the CMRS. This is because in an episode of mania/hypomania one expects that if a parent describes manic symptoms, these symptoms should be evident to other observers. Given how much time a child spends in school, teachers should be aware of at least some manic symptoms or some disruptive behavior if manic symptoms are occurring. As Youngstrom et al. (2008) imply, symptoms might not be understood as mania outside of a mental health setting, and some having to do with sleep and sex may be avoided in teacher responses, but the irritability and aggression/rages that are so impairing at home should be apparent in school. On the other hand, there are some who suggest that manic symptoms occurring only at

home constitute an ultradian cycle in which moods switch in a day (Geller et al. 1998b), with the switch hypothetically occurring when the child gets home. The point is that reasons for information variance have not been explored.

The study, then, not only asks what disorders most often occur with parent/teacher agreement for significant symptoms, but also examines what diagnoses are likely to be made in situations in which there is a significant disparity in parent and teacher observations of manic symptoms, that is, if the parent observes manic symptoms but the teacher does not.

Methods

Participants included 911 consecutively referred school-aged children and adolescents (between ages 5 and 18 inclusive) referred to a child psychiatry outpatient clinic during the academic years between 2005 and 2008 (and who therefore had both parent- and teacher-completed rating scales) received a thorough psychiatric evaluation. The study was approved by the Stony Brook Institutional Review Board.

As part of the evaluation of their child, parents and the child's teacher completed the Child Behavior Checklist (CBCL) and TRF (Achenbach 1991a), respectively, and the parent and teacher versions of the Child and Adolescent Symptom Inventory (Sprafkin et al. 2002). Parents and teachers also completed the CMRS (Pavuluri et al. 2006), a questionnaire that solicits symptoms of mania using a 4-point Likert scale format. The CMRS score of >20 has been found to distinguish mania from ADHD with a sensitivity of 0.81 and specificity of 0.94 in the site that developed the instrument. Children were not evaluated unless rating scale information was received from both parents and teacher.

Four child and adolescent psychiatry faculty members were responsible for making best-estimate diagnoses based on 3-hour interviews with parent and child and using the Child and Adolescent Inventory as a guide to obtain a systematic symptom review (Carlson et al. 2009). The assessments included reviews of school and other past information as was available. An extensive report that provides diagnostic justification is generated for the children, which is the basis on which reliability of diagnosis was obtained. Although the other rating scales were available as part of the evaluation, clinicians were blind to the CMRS ratings. Based on 50 evaluations, kappa agreement between two child psychiatrists for major diagnostic categories (ADHD, any anxiety disorder, any depressive disorder, bipolar [BP] disorder, any pervasive developmental disorder) based on the diagnostic evaluations ranged from $k=0.78$ (depression) to 1.0 (ADHD, BP disorder).

The top quartile (25%) of scores on the parent and teacher versions of the CMRS was chosen to define cross-informant agreement on the presence of significantly elevated manic symptoms. The lowest quartile of the teacher CMRS (CMRS-T) was selected to define very low teacher endorsement of manic symptoms. Discordant ratings consisted of the highest quartile of parent ratings and lowest quartile of teacher ratings. [The cutoff score of 20, used by Pavuluri et al. (2006), represented about one standard deviation for both parent and teacher scores. There was insufficient power with the resulting sample sizes to examine the diagnostic significance of concordant and discordant teacher ratings.]

Besides BP disorder, specific diagnoses examined for their association with parent/teacher agreement patterns were those that have been most associated with BP disorder in children. These included ADHD, oppositional defiant disorder (ODD)/conduct disorder (CD), their combination (defined as externalizing disorder)

ders), depressive disorders, and anxiety disorders (i.e., internalizing disorders).

In addition to *Diagnostic and Statistical Manual of Mental Disorders* 4th ed., Text Revision (DSM-IV-TR) (American Psychiatric Association) diagnoses, subscale scores on the CBCL (Achenbach 1991b) and TRF (Achenbach 1991a) were also compared with the CMRS as were T scores ≥ 67 on the CBCL called the “Bipolar” (Biederman et al. 1995) or “dysregulation” (Ayer et al. 2009) phenotype and the three subscales that comprise it, namely the anxiety/depression, attention (hyperactivity), and aggression problem subscales. To further examine teacher consistency, we compared correlations between CMRS-T and TRF ratings and examined teacher reports of homework completion and test performance. Treatment data described in the study included lifetime treatments children had prior to their evaluation.

Logistic regression examined factors associated with a child’s parent and teacher ratings concordant for high CMRS total scores. The covariates considered were demographic variables, best-estimate DSM diagnosis, school type (elementary, secondary), and full-scale intelligence quotient (IQ) from evaluations conducted by the child’s school psychologist within the preceding 3 years. Of the 911 subjects, 698 (75%) had IQ testing. School type was included, because the students’ secondary school teacher informant has spent much less time with the student than an elementary school teacher and therefore might provide less accurate information.

Results

In this sample, internal consistency was high for both parent-completed and teacher versions of the CMRS (parent: Chronbach’s coefficient $\alpha = 0.858$; teacher: $\alpha = 0.862$).

The top quartile for the parent CMRS (CMRS-P) score was demarcated by a total score of 15, and for the CMRS-T the value was 13. The bottom teacher quartile score was 2. Forty-two children and adolescents (4.6%) met our criteria for the most variant on the CMRS-P and CMRS-T, and 105 (11.5%) were the most concordant. (Sample sizes using a score of ≥ 20 would have been 17 and 39, respectively.) Of children whose parents gave them high scores on CMRS-P and thus were endorsing significant explosive and moody behavior, about a quarter (28.6%) had teachers who observed almost no symptoms on the CMRS (i.e., parent high/teacher low). (Only 25 children had high teacher and low parent mania scores and are not the subject of this study.)

Academic competence was reported in 95% of the sample. Youths with high CMRS-P and low CMRS-T scores, compared with high CMRS-P and CMRS-T endorsements, were significantly more likely to have good homework completion (63.2% vs. 34.0%; odds ratio [OR]: 0.30; 95% confidence interval [CI]: 0.14–0.66; $p = 0.002$) and test performance (59.0% vs. 38.6%; OR: 0.44; 95% CI: 0.14–0.66; $p = 0.034$). Teachers, in other words, were internally consistent with their symptom rating scores.

The rates of “often/very often” for CMRS symptoms and their rank order were similar between parents and teachers and the most commonly reported symptoms were distractibility, irritability, mood swings, and rages. A major difference was in the frequency of any rage attacks (54% from parents; 29% from teachers).

The correlation, however, between CMRS-P and CMRS-T scores was $r = 0.27$ ($p < 0.000$). Similar correlations were found for parent and teacher sum scores on the CBCL and comparable TRF “juvenile bipolar/dysregulation” phenotype ($r = 0.227$; $p < 0.000$). Within informants, however, the correlations were high. Correlation between the CMRS-P and the CBCL “bipolar/dysregulation” phenotype was

$r = 0.757$. Correlations of the CMRS-P with each component of the “bipolar/dysregulation” phenotype were $r = 0.519$ for anxiety/depression, $r = 0.611$ for attention, and $r = 0.727$ for aggression. Similarly, correlation between the CMRS-T and TRF “bipolar/dysregulation” phenotype was $r = 0.786$; correlations between the CMRS-T and anxiety/depression were $r = 0.413$, attention $r = 0.542$, and aggression $r = 0.780$. All were significant at the $p < 0.000$ level.

A total of 66 (7.3%) of the 911 children were diagnosed with BP I or II ($n = 23$, 2.5%) or BP disorder not otherwise specified (BPNOS) ($n = 43$, 4.7%). If the CMRS-P score was ≥ 15 , 14.7% (vs. 4.4%) had any BP (OR: 3.6; 95% CI: 2.1–6.2) (not shown). A CMRS-P score of ≥ 20 revealed virtually identical findings (17.3% any BP vs. 5.4%; OR: 3.6; 95% CI: 2.1–6.2). Teacher agreement or disagreement did not add to diagnostic accuracy for students with BP I or II. BPNOS was more common in children with concordant high CMRS-P and CMRS-T ratings (10.5% vs. 4.8%) but the difference was not statistically significant (Table 1).

Concordant and discordant CMRS-P/CMRS-T ratings were more strongly related to diagnoses other than BP disorder. In unadjusted bivariate analyses (Table 1), logistic regression indicated a 6.4-fold greater odds of both parents and teachers providing high CMRS ratings among children who were diagnosed with externalizing disorders (ADHD, ODD, CD, or any combination of these). Children who were nonwhite or in lower grades were also more apt to have concordantly high CMRS-P and CMRS-T ratings. Children with internalizing disorders (anxiety and depressive disorders) were significantly less likely (OR = 0.20; 95% CI: 0.09–0.45) to have high CMRS-P-CMRS-T agreement than to have CMRS-P-high and -low patterns of CMRS-T ratings or, said another way, they were five times more likely to have discordant CMRS-P/CMRS-T ratings. Many of these children had a history of receiving antidepressant treatment.

To better explain parent–teacher concordance on high CMRS ratings, a combined variable (adjusted) model was developed that included predictors whose bivariate association with high CMRS concordance had p -values of 0.20 or less (right-hand section of Table 1). Among variables that one expected *a priori* to have high intercorrelations (e.g., ADHD and any externalizing disorder), the model included the one variable with the largest bivariate χ^2 value. Variables meeting these criteria were included in the combined-variable model as a single block with no sequential variable selection of deletion methods. In this adjusted model, externalizing disorders continued to maintain a strong association with parent/teacher high CMRS score concordance. A history of mood stabilizer treatment also emerged as a predictor of concordance. An internalizing disorder continued to predict a greater likelihood of CMRS-P-high and -low T-CMRS ratings. Ethnicity’s bivariate association with parent–teacher concordance was diminished in the adjusted multivariable model, because nonwhite ethnicity was confounded with a lower likelihood of an internalizing disorder diagnosis (OR = 0.19; 95% CI: 0.07–0.57; $\chi^2 = 9.52$; $p = 0.02$), and internalizing diagnoses, in turn, had a stronger relationship than ethnicity with parent–teacher concordance for high manic symptom ratings (see Table 1). Similarly, elementary school placement was confounded with a lower likelihood of antidepressant treatment (OR = 0.26; 95% CI: 0.13–0.93; $\chi^2 = 0.57$; $p < 0.001$), which eclipsed its predictive value in the adjusted model.

Discussion

This study reports a parent/teacher correlation for manic symptoms of $r = 0.27$, almost identical to the $r = 0.23$ correlation

TABLE 1. DEMOGRAPHIC, DIAGNOSTIC, AND TREATMENT FACTORS FOR PARENT-TEACHER CHILD MANIA RATING SCALE CONCORDANCE GROUPS

Predictor	Means and frequencies of predictors within CMRS parent-teacher concordance groups		Predictor effects on parent-teacher CMRS concordance (parent-high/teacher-low vs. parent-high/teacher high)								
	Parent high, teacher low	Parent high, teacher high	Rest of sample	OR	95% CI	χ^2	p	OR	95% CI	χ^2	p
n (% of total sample)	42 (4.6)	105 (11.5)	764 (83.86)								
Mean age (SD)	12.5 (3.2)	11.8 (3.8)	12.1 (3.5)	0.91	0.82-1.01	3.37	0.07				
Mean grade (SD)	6.71 (3.03)	5.25 (3.73)	6.08 (3.43)	0.89	0.80-0.99	4.69	0.03	0.88	0.66-1.17	0.75	0.39
Full scale IQ (SD) (n = 698)	95.92 (11.94)	96.44 (16.34)	96.50 (14.82)	1.00	0.97-1.03	0.02	0.88				
n (%) nonwhite	1 (2.4%)	25 (23.8%)	123 (16.1%)	12.81	1.68-97.94	6.04	0.01	7.06	0.79-62.77	3.07	0.08
n (%) elementary	16 (38.1%)	57 (54.3%)	349 (45.7%)	1.93	0.93-4.01	3.10	0.08	0.98	0.15-6.57	0.00	0.98
n (%) male	28 (66.7%)	75 (71.4%)	546 (71.5%)	0.80	0.37-1.73	0.32	0.57				
n (%) bipolar I	3 (7.1%)	7 (6.7%)	13 (1.7%)	0.93	0.23-3.78	0.01	0.92				
n (%) BPPOS	2 (4.8%)	11 (10.5%)	30 (3.9%)	2.34	0.50-11.04	1.15	0.28				
n (%) ADHD	29 (69.1%)	91 (86.7%)	585 (76.6%)	2.91	1.23-6.91	5.90	0.02				
n (%) any externalizing disorder	23 (54.8%)	93 (88.6%)	550 (72.0%)	6.40	2.72-15.05	18.12	<.01	10.20	3.27-31.79	16.0	<.01
n (%) any depressive disorder	15 (35.7%)	16 (15.2%)	134 (17.6%)	0.32	0.14-0.74	7.17	0.01				
n (%) any anxiety disorder	24 (57.1%)	27 (25.7%)	270 (35.3%)	0.26	0.12-0.55	12.36	0.00				
n (%) any internalizing disorder	31 (73.8%)	38 (36.2%)	345 (45.2%)	0.20	0.09-0.45	15.63	<.01	0.27	0.10-0.71	7.13	0.01
n (%) any treatment	34 (81.0%)	77 (73.3%)	430 (56.3%)	0.65	0.27-1.57	0.93	0.33				
n (%) ADHD meds	19 (45.2%)	58 (55.2%)	241 (31.5%)	1.49	0.73-3.07	1.20	0.27				
n (%) antidepressant treatment	20 (47.6%)	32 (30.5%)	151 (19.8%)	0.48	0.23-1.01	3.79	0.05	0.48	0.18-1.30	2.09	0.15
n (%) mood stabilizer treatment	8 (19.1%)	31 (29.5%)	52 (6.8%)	1.78	0.74-4.28	1.66	0.20	6.81	1.87-24.85	8.44	<.01
n (%) antipsychotic treatment	15 (35.7%)	42 (40.0%)	86 (11.3%)	1.20	0.57-2.52	0.23	0.63				

ADHD = attention-deficit/hyperactivity disorder; BPPOS = bipolar disorder not otherwise specified; CI = confidence interval; CMRS = Child Mania Rating Scale; OR = odds ratio; SD = standard deviation; IQ = intelligence quotient.

found by Youngstrom et al. (2008) for the CMRS-P and -T in their study. Kappa for high scores on the CMRS was significant but low. Althoff et al. (2010) reported parent/teacher kappa agreement for the “bipolar/dysregulation” profile on the CBCL/TRF between 0.139 for males and 0.236 for females, although they used a latent class analysis rather than cutoff scores to compare ratings. Kappa of 0.215 in the current sample is similar. These data suggest that the instruments in the current sample are performing in ways similar to what others have found.

We contend that the utility of various informants is to inform the clinician about the child’s function and diagnosis. The operative question herein is what conditions likely explain concordant or discordant reports. We selected the highest and lowest quartiles of parent and teacher symptom reports to generate a sample large enough to study and to provide a large enough contrast to ensure truly discordant reports between parents and teachers. The majority of the sample clearly falls between the 25 percentiles and 75 percentiles but, to reiterate, we were interested specifically in children who were very symptomatic at home and not at all symptomatic in school to examine the question of whether these youths present with a particular kind of rapid-cycling BP disorder.

Rates of BP disorder were low in this sample especially compared with how often parents reported relatively high scores on a scale of manic symptoms. We selected the highest 25% of scores to define the sample of parent-reported manic symptoms ($n=147$). Only 15.6% of those with parent-reported manic symptoms (23/147) had a BP spectrum disorder and half had BPNOS. The low rate of mania with parent-reported manic symptoms is consistent with the recently published Longitudinal Assessment of Manic Symptoms study (Findling et al. 2010; Horwitz et al. 2010). In that study, which has reported rates of “elevated symptoms of mania” in 6–12-year-old clinic patients to be 42.9%, only 25% had a BP spectrum disorder, and half of those had BPNOS.

Nevertheless, BP disorder occurred almost four times more often when parents reported manic symptoms at or above this sample’s 75 percentile than when scores were lower. [Using the ≥ 20 score described by Pavuluri et al. (2006) the prediction of mania was no higher.] In addition, as Youngstrom et al. (2008) found, low scores on the teacher report reduced the likelihood of BP disorder moderately, although in both the Youngstrom and current samples, the low base rate of BP disorder in a large outpatient sample compared with other diagnoses did not render the scores very useful clinically. Interestingly, both parents and teachers identified similar issues of concern on the CMRS, that is, distractibility, irritability, mood swings, and rages. However, the modest correlation suggests that they were often identifying these items in different children and the items endorsed rarely indicated classic symptoms of mania.

More importantly, however, when there was parent and teacher corroboration on high CMRS symptom ratings, externalizing disorders (either or both ADHD and ODD/CD) had 10 times higher odds to be diagnosed in the adjusted-covariates model, and when there was complete disagreement (parent high and teacher low), depression and/or anxiety disorders were far more likely to be part of the diagnostic picture. Prior use of mood stabilizers or antidepressants in the concordant and discordant groups likely reflects the diagnostic thinking of clinicians who were treating these young people prior to our assessment.

The high rate of externalizing disorders in children with parent and teacher agreement on manic symptoms is not a surprise. Although selected to identify symptoms of mania, mania rating scales identify attention, behavior, and mood symptoms that co-occur. The “dysregulation/bipolar phenotype” of the CBCL illustrates

that most clearly. It is the history of episodes (that is, symptoms with an onset and offset compared with baseline behavior) that identify actual mania and hypomania.

The finding of high rates of internalizing disorders in children with discordant parent/teacher mania ratings is clinically significant for two reasons. The first is that parents are not identifying trivial problems. The child has a significant psychiatric disorder. The second is that although the irritability, rages, and other dysregulatory features clearly develop in the context of a mood disorder, the mood is probably not mania and is not ultradian cycling. Interestingly, in the three youths with BP disorder with discordant parent/teacher reports, all were in their depressed phase. From a psychopharmacologic standpoint, this is very important. If one thinks the child is having rapid cycles, one is not going to precisely use the kinds of medication that is indicated in anxiety and depression.

Circumstances in which parents report manic symptoms about their child not corroborated by other informants raise questions about why the disparity is occurring.

We have not systematically studied reasons why anxious and depressed children are identified as manic-like by their parents and not their teachers. It is possible that youth with social phobia diagnoses (most often diagnosed in the anxiety sample) may not want to make a spectacle of themselves outside of home. Depressed youth may not have the energy to be disruptive or may find school rewarding (as they are, by and large, successful there) and thus feel less irritable. The point is that although teacher information had little to add to the positive diagnosis of BP disorder, teacher information had a great deal to add in keeping the diagnosis of BP disorder from being erroneously made.

Several limitations need to be considered in understanding these results. First, we have insisted on obtaining both parent and teacher information prior to interviewing parents and children for evaluation. This may limit comparability with clinics, which are less selective about patients they treat and who do not obtain teacher information directly from teachers.

Second, although our interviews and diagnostic procedures are thorough and based on more information than traditionally going into a structured/semistructured interview assessment, we did not use structured interviews to make diagnoses. Children with suspected BP disorder referred for clinical trials were routinely reinterviewed with such instruments, however. Nevertheless, some children with hypomania or BPNOS may have been overlooked.

Third, the diagnosis of BPNOS was the equivalent of “probable” BP disorder. It was diagnosed when the clinical history and symptom review did not lead to an unequivocal diagnosis of current or lifetime mania or hypomania. It has been our experience that some informants simply cannot provide the kind of information necessary on which to make a definitive diagnosis. This is a less-precise definition than that used in the Course and Outcome of Bipolar Youth study (Birmaher et al. 2009), in which interviewers can elicit lifetime episodes of 1–3 days of mania or hypomania from their informants.

Another limitation is that the analyses excluded the large number of cases in which parent’s scores were elevated and the teacher score was neither high nor low. However, the goal of the study was not to inform about sensitivities and specificities of different informant but specifically to address the diagnostic question of parent mania endorsements in the face of asymptomatic school presentations.

Finally, the sample described is a clinically acquired sample. Information gathered was part of a routine outpatient assessment

and not collected with the goal of specifically examining informant variance and its diagnostic implications. As such these are secondary analyses.

Conclusion

Although parent and teacher agreement on manic symptoms is in the range of agreement found for other psychiatric disorders, rates of concordance and discordance between raters proffers important clinical information. High rates of manic symptoms reported by both parents and teachers most likely occur in children with externalizing disorders. BP mania may certainly occur, but the rates are considerably lower than for attention-deficit/hyperactivity disorder and its behavior disorder comorbidities. If the child is described by a parent as having manic symptoms and direct and systematic information from the teacher (vs. asking parents what the teacher has told them) reveals no behavior problems at all, an internalizing disorder needs to be specifically ruled out.

Disclosures

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