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2007

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Recommended Citation

Luby, Joan; Tandon, Mini; and Nicol, Ginger, "Three clinical cases of DSM-IV mania symptoms in preschoolers." *Journal of Child and Adolescent Psychopharmacology*.17,2. 237-244. (2007).
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Three Clinical Cases of DSM-IV Mania Symptoms in Preschoolers

Joan Luby, M.D., Mini Tandon, D.O., and Ginger Nicol, M.D.

ABSTRACT

Despite a growing body of empirical data describing the discriminant and longitudinal validity of mania in older children, little research has been conducted investigating the presence of mania symptoms in preschool-aged children. This report describes three cases of preschool children (ages 3.6 to 5.2) who presented to a subspecialty mental health clinic manifesting age-adjusted mania-like symptoms. Developmental manifestations of DSM-IV mania symptoms described include grandiosity, hypersexuality, elation, racing thoughts, and decreased need for sleep. These symptoms have been shown to be highly specific to distinguish bipolar disorder from attention deficit hyperactivity disorder (ADHD) in older children. Possible manifestations of mood cycling are also described. Clinical observations, parental reports, and related family mental health history are reviewed.

INTRODUCTION

A CONVERGING BODY of evidence has now established the discriminant validity and longitudinal stability of mania symptoms in school-aged children (Geller et al., 2002a; Geller et al., 2004; Biederman et al., 2005; Birmaher et al., 2006). Geller et al. (2002b) have also described age-adjusted manifestations of mania symptoms that are specific to bipolar disorder (BP) and distinct from the symptoms of ADHD in school-aged children. Despite these compelling findings of a specific and stable mania syndrome in children as young as 7 years, the question of whether mania symptoms can arise in even younger preschool-aged children has not yet been the focus of significant scientific study. This may be related to the longstanding

assumption that preschool-aged children would be too developmentally immature to experience mood-disorder symptoms. Traditionally, developmentalists have theorized that preschoolers could not experience some of the key symptoms of mood disorders. Also, the assumption that many of the central emotions of mania, such as elation or grandiosity, might be indistinguishable from developmental norms during the preschool period has prevailed. However, recent advances in our understanding of the emotional and cognitive capacities of preschool-aged children have demonstrated that it is not developmentally impossible for children as young as 3 years of age to experience complex emotions such as guilt and shame (Zahn-Waxler et al., 1991; Zahn-Waxler and Robinson, 1995). Basic developmental research

has also demonstrated that a stable self-concept arises during the preschool period, making it at least theoretically possible for a preschool child to display grandiosity (Thompson, 2006).

Whether clinically significant elated mood is possible during the preschool period cannot be addressed by studies of normative development. Several case studies and retrospective chart reviews have suggested that it is possible to manifest a bipolar syndrome during the preschool period (Mota-Castillo et al., 2001; Wilens et al., 2002, 2003; Tumuluru et al., 2003; Scheffer and Niskala, 2004; Biederman et al., 2005). However, the case studies available to date have focused predominantly on treatment and have not described age-specific symptom manifestations in detail. A recent exploratory investigation of mania symptoms in preschool children, part of a larger investigation focused on preschool depression, compared preschool children who met DSM-IV symptom criteria for bipolar disorder (BP)-I to those who were healthy. This study provided robust evidence that clinical elated mood, as defined by an age-appropriate preschool mania module of a larger preschool-aged diagnostic interview, is not a normative phenomenon (Luby and Belden, 2006). This investigation also demonstrated that "cardinal symptoms" of mania as previously described by Geller et al. (2002b), specifically clinical levels of elation and grandiosity, can also arise in preschool children between the ages of 3 and 6 years. Other symptoms useful to distinguish mania from other disruptive behavioral disorders, such as hypersexuality and decreased need for sleep described by Geller et al. (2002a) in older BP children, were also detected and served as markers of the disorder in preschool children (Luby and Belden, 2006). The clinical importance of this preschool syndrome is underscored by the finding that this group was significantly more impaired (according to both teachers and parents) than both healthy and disruptive groups (those who had DSM-IV ADHD, ODD, or CD) (Luby and Belden, 2006).

In addition to these highly suggestive findings, case studies that describe the clinical characteristics of preschool-aged children who seek mental health evaluation and receive a clinical diagnosis of presumptive BP are of interest.

They are of value in part due to the paucity of literature currently available on this issue. Also, the scant available empirical data do not elaborate on the details of how mania symptoms manifest in young children and how such symptoms might be distinguished from normative extremes and or other disruptive behavioral disorders, as outlined by Geller et al. (2002a, 2002b) for older children. Of particular interest is how these symptoms with known specificity for BP in older children, such as grandiosity, elation, hypersexuality, racing thoughts, and decreased need for sleep, would present in a preschooler. Such information about the course and duration of symptoms and potential manifestations of cycling would also be of interest. The increasing application of the BP diagnosis to younger children and the related use of mood-stabilizing medications for treatment also enhance the need for more detailed descriptions of age-adjusted symptom manifestations for use by clinicians to enhance diagnostic accuracy (Zito et al., 2000; Harpaz-Rotem and Rosenheck, 2004). Detailing the clinical characteristics of mania-specific symptoms is critically important due to the difficult distinction between the diagnosis of BP and the much more common and well-validated diagnostic categories, such as attention-deficit hyperactivity disorder (ADHD) and/or oppositional defiant disorder (ODD) in preschool-aged children.

Based on the preceding discussion, three clinical cases of presumptive BP arising in preschool-aged children evaluated at the Washington University School of Medicine (WUSM) Infant/Preschool Mental Health clinic are outlined. All cases were evaluated by the clinic director, an experienced infant-preschool psychiatrist specializing in mood disorders (JL) and a second-year child psychiatry fellow (MT or GN) over 4 sessions using standardized and age-appropriate clinical assessment techniques described in detail elsewhere (Luby and Morgan, 1997; Thomas et al., 1997). Initials will be used to protect the privacy of these patients; however, verbal consent to use patient information has been obtained from legal guardians of all patients.

PRESENTATION OF CASES

Case 1

LF first presented to the preschool clinic at the age of 5 years 2 months with a history of uncontrollable, silly laughing for “no apparent reason” noted by parents since the age of 4. Parents also indicated concern about the fact that “she thinks she is better than everyone else” at drawing, singing, ballet, and other activities. Parents indicated that this sense of confidence was present even when she was not particularly talented in these areas. One example given was that after catching a fish during a fishing trip she declared proudly “nobody can do anything better than me.” On another occasion, she demanded to be carried to the car after ballet practice since she was “the best dancer” and did not want to soil her shoes. When the family moved to a new home, she insisted that she have the master bedroom suite, despite parents’ redirection on this issue (parents did not comply with this demand). She has difficulty with peer interactions because she often tells friends how to play and then leaves them behind if they will not conform to her rules.

Her grandiosity was routinely evident in the clinic setting. In the first clinical contact, this 5-year-old boldly teased the child psychiatry fellow about “having a crush” on the clinic secretary; she was clearly unintimidated and taking charge of the clinical setting. In subsequent follow-up office visits, the patient told the senior child psychiatrist, “You do not have me on the correct dosage. Let me help you because I know what it should be.” In these visits, it is not uncommon for LF to storm out of the room, demanding that only she knows what pills should be taken. Of note is that she feels remorseful in the aftermath of these outbursts and at times returns to apologize after prompting by her mother. Along these lines, she will frequently tell teachers how to improve their skills.

LF’s symptomatology and impairment in family functioning were further exacerbated by an ongoing decreased need for sleep. Parents report that she may awaken as early as 3 A.M. without fatigue episodically since very early childhood. She is easily angered at times and has become aggressive when her demands are

not met, as evident when she once bit her mother, who had stated she could not watch a video at that particular time. Her brother has no known behavioral problems but has been victimized by her tantrums, which have lasted as long as 3 hours at a time. Another manifestation of her grandiose behavior in the sibling relationship is that she attempts to control her brother by requesting that he remain quiet during long car trips; but she talks incessantly herself and is unwilling or unable to be interrupted.

An extensive medical workup, including MRI of the brain, revealed no organic abnormalities. Interestingly, family history in this case was strongly suggestive of multiple members with mania-like symptoms. For example, a paternal grandmother apparently engaged in multiple new business ventures each year, was extremely social, and never seemed to tire despite sleeping little. A paternal aunt was described as having multiple marriages, extramarital affairs, and alcohol abuse. No formal psychiatric evaluations had been obtained for any of these family members. Of note is that LF has been followed in the clinic for >5 yr since her initial presentation at age 5. The symptoms have been managed on an outpatient basis with a combination of psychotherapy and mood-stabilizing medications. Despite some improvement in mood and, related to this, in her ability to be maintained in a regular classroom setting, she continues to be significantly socially impaired, and symptoms of grandiosity and irritability have been stable and unremitting over this period of time.

Case 2

MG was referred to the WUSM Infant/Preschool clinic at age 3 years and 8 months due to parental concern about extreme “ups and downs” or “mood swings” first noted at the age of 2 years; however, MG was also described as emotionally labile and irritable even as an infant. He began to show signs of euphoria, described as being “excessively happy,” at times with no apparent precipitant. He was noted to be overly amorous with older friends, relatives, and teachers. For example,

when playing with peers, he was known to repeat "I love you" over and over, while hugging or licking their faces aggressively. This behavior was also displayed toward adult females, both known acquaintances and strangers. MG had reportedly been overly flattering and flirtatious with teachers and friends of his mother, who expressed discomfort at his displays of romanticism. He has also been known to point to strange women in public and shout, "I'm going to marry you!" MG was described as "overly friendly" with strangers in public settings and would not uncommonly convince them to buy him treats at a bakery as an example. Strangers as well as caregivers often found him to be "extremely charming."

Alternately, MG could become aggressive and at times violent with minimal or no obvious provocation and would state that he wanted to kill others or die himself. MG sometimes expressed to his parents the fear that strangers in public were talking about or laughing at him.

MG demonstrated an inflated sense of self, demanding always to be the leader or "in the front" during family outings and in preschool. He consistently commanded the undivided attention of adult family members during family get-togethers and seemed to prefer the company of adults to children. During clinical evaluation, MG repeatedly stated he knew things "because my mind is just made that way" and described himself as "the king." He was known to express the same kind of thoughts to the teachers at school and to peers, resulting in social problems in the preschool setting. In keeping with this, he attempted to take control of the preschool classroom, and his behavior in this setting was chronically problematic, resulting in dismissal from several preschool settings prior to the current placement.

There were also reports of decreased need for sleep. Since infancy, he seemed to need less sleep than his fraternal twin sister and reportedly had never slept through the night. He rarely took naps and had significant problems with initial insomnia. After being put to bed at night, MG's parents reported that he would bang his head repetitively on his pillow, sometimes into the early hours of the morning. Despite this relative lack of sleep, he was noted to

arise early with "all kinds of energy." It is of note that MG demonstrated some insight into the consequences, stating "sometimes I get crabby when I don't sleep but my brain doesn't want to." In addition, MG demonstrated high levels of productive energy, often spending hours of undivided attention on a large building task. He was able to do this even after several nights of very few hours of sleep.

MG's medical history is significant for being a fraternal twin. He and his sister were born 8½ weeks premature, and the first 5 weeks of life were spent in the neonatal intensive care unit without neurologic sequelae. Gross motor, speech, and language development was also reported as normal. The family history was positive for several maternal relatives, including the mother who was treated for anxiety disorders. Additionally, a great maternal uncle had been diagnosed with BP. No behavioral or emotional concerns were reported for MG's twin and younger sisters. The home and psychosocial environment appeared stable; both parents were well educated and productively employed and appeared to engage in appropriate parenting strategies. There was no suspected physical or sexual abuse or neglect.

Case 3

AF presented to the clinic at 4 years 6 months of age with intense irritability and mood lability, which were impairing his function both at home and preschool. He is reported to change his mood from one extreme to the other "on a dime" and for no apparent reason. He is described by parents as having moment to moment fluctuations in mood, in which he may appear "giddy" and "bouncing off the walls" and expresses that he is "very happy." These periods alternate with melancholia during which he seems listless and without energy and is readily tearful. These intense mood changes occurred daily and many times a day, and his mother found it exhausting to attempt to help him maintain his emotions at a socially appropriate level. He also becomes easily irritated with low frustration tolerance, as evidenced by his rolling his 2-yr-old brother down the stairs and poking his brother's eye with a pencil with no known provocation. This behavior resulted

in a hospitalization prior to his presentation to our clinic.

He is described by his mother as often inconsolable and "clingy," with ongoing but episodic difficulty tolerating separation. He may become dysphoric when his mother leaves his side, after drop-off at school, or during bedtime separation. He readily attaches to the teacher's assistant at school, engaging her in charming ways, but then may have difficulty separating from her at the end of the school day as well. While he has been able to be maintained in a preschool setting for 2 hours a day, parents are unable to find a stable babysitter due to the difficulty of caring for AF. Baby sitters have generally refused to return after their first experience.

He has lived with his biological parents since birth and has one younger sibling. A complete medical workup was unremarkable. Of interest in this case is the fact that his mother receives treatment for depression and anxiety; the diagnosis of BP has not been made in any family member to date to the parent's knowledge.

DISCUSSION

These three cases provide examples of DSM-IV mania-like symptoms arising in preschool-aged children. These cases illustrate age-adjusted manifestations of those symptoms known to best differentiate BP from ADHD in older children (Geller et al., 2002a). The notion that these symptoms are also specific to distinguish BP from ADHD in preschool-aged children has also been suggested by an exploratory study (Luby and Belden, 2006). The symptom of grandiosity was manifested by two cases, one in a girl and the other in a boy. In the case of LF grandiosity was evident in the clinical evaluation based on the highly unusual precocious directive behavior toward the unfamiliar clinician authority figures. This kind of behavior toward the parents was also reported in the history, was observed in the clinic, and had been long-standing. This behavior arose in the context of competent parenting and a sibling without similar behavioral problems. In addition, the same grandiose behavior was ob-

served by teachers and in church and was highly problematic in those contexts. This behavior was determined to be grandiose, rather than simply oppositional or defiant, based on the child's underlying belief that she could direct the interview, make decisions about treatment plans, and have authority over the doctors and teachers. The behavior also arose in the context of competent parenting and an appropriate and structured home environment, and in the absence of a pervasive angry emotional tone suggestive of oppositionality. The grandiose behavior of MG had a similar manifestation in that the child felt he had age-inappropriate stature and abilities which he believed in firmly even when pressed. Further, he believed he had an adult status in several circumstances and behaved persistently and in multiple contexts in a manner consistent with this belief.

A characteristic feature of the grandiosity manifested by both LF and MG was that it was pervasive in all environments, home, school, and clinic, and thus was not state or relationship specific. And quite importantly, it was a fixed and false belief that was held by the children even when pressed. That is, these children tenaciously asserted their belief about their status as "the best" at various skills, which empowered them to make executive decisions, even when attempts were made to dissuade them by parents and/or teachers. Confirmation that the inflated self-concept of these preschoolers represented a fixed false belief was evident not only by their verbal description of their own capacities (which could be developmentally discounted), but also more importantly by persistent inappropriate grandiose behaviors across contexts. These qualities are key to inferring delusional grandiosity in a young child for whom verbal description is less reliable. The absence of an underlying angry tone or oppositional behavior that arises only in reaction to demands or directives from authority figures is also key to distinguishing grandiosity from oppositionality.

Hypersexuality, or perhaps more accurately "hyper-romanticism," was also evident in the case of MG. MG displayed strong romantic inclinations that he acted on toward both adolescent girls and adult women. Of importance,

a repetitive pattern of interest along these lines differentiated the behavior from a more intense attachment to one person, as can occur normatively (e.g., a young child who is "in love" with a particular teacher). In this case, MG found numerous older girls and/or women to be amorous figures to pursue. The behaviors went beyond early "crushes" and were clearly associated with a lot of emotion and outward expressions of affection and romanticism (such as wanting to send roses to a teenage girl and asking a teacher to marry him). The intensity of these amorous behaviors was evidenced by the adult women's expressions of discomfort. Again, these feelings are associated with an underlying fixed belief that these encounters are appropriate and will be requited. In this sense, hyper-romantic behavior also has a grandiose quality. This behavior arose in the absence of suspected sexual abuse or inappropriate exposure.

Decreased need for sleep is particularly poignant in the case of MG, but is also described in LF as well. In this case, MG's inability to sleep combined with his intense almost around the clock productive energy became highly impairing for the child's caregiver and family. In fact, this symptom was the single most difficult one for the family to deal with and is ultimately what led them to the use of medication in addition to the primary recommendation of psychotherapy. Notable is that MG did not sleep more than a few hours a night, but awoke the next morning full of energy and did not seem to tire. This produced significant family impairment, because his mother was too exhausted to perform other household activities due to her need to care for MG. MG also expressed some discomfort with this state of "hyper-awakeness," stating in one office visit, "I wish my brain would take a rest but it just doesn't want to." This patient also had an interesting form of hypersociability evidenced by his ability to engage and "charm" strangers in public places, often convincing them to buy him treats.

Elation associated with hyper-talkativeness was evident in several of the cases described. Parents reported elevated mood states that were sustained (lasting for hours or all day) and arising for no apparent reason. The child

appeared giddy and was laughing inappropriately, described as "bouncing off the walls," and unable to calm down. These states appeared distinctive from normative silliness or a joyful mood often seen in young children, given its intensity, duration, contextually incongruent quality, and the child's inability to regulate or control the elevated mood and return to a euthymic state when socially required. In all cases, parents described this elevated mood as significantly impairing to the child and disruptive to family life. Also of note is the family history of affective disorders, in two cases diagnosed BP. Also notable was that in all cases siblings in the family did not manifest behavioral problems, confirming the clinical impression that the parenting environment was in general appropriate.

These case descriptions provide examples of our clinical experience of the manifestations of DSM-IV mania-like symptoms arising in preschool-aged children. Symptoms appear to be age-appropriate forms of DSM-IV mania and are not typical of symptoms found in other well-known disruptive behavioral disorders in young children. These clinical presentations appear to be age-adjusted manifestations of the symptoms previously described by Geller and colleagues (2002b), which also emerged as key differentiators between mania and ADHD in a large controlled investigation of slightly older school-aged samples (Geller et al., 2002a). Large-scale controlled systematic studies are now needed to determine the validity (e.g., specificity and longitudinal stability) of these symptom constellations in preschool-aged children. These investigations should also address the issue of specificity as well as impairment. Of central importance to the definition of the disorder in early childhood, longitudinal data are needed to inform the continuities and discontinuities between these early onset forms and later childhood phenotypes and course. The need for longitudinal follow-up in preschool-aged samples at school age is also underscored by reports of preschool onset of symptoms in several samples of school-aged bipolar children known to have stable symptoms in adolescence (Geller et al., 2002a; Geller et al., 2004; Biederman et al., 2005; Birmaher et al., 2006).

DISCLOSURES

Doctors Luby, Tandon, and Nicol do not have any conflicts of interest or financial relationships to disclose.

REFERENCES

- Biederman J, Faraone SV, Wozniak J, Mick E, Kwon A, Clayton GA, Clark SV: Clinical correlates of bipolar disorder in a large, referred sample of children and adolescents. *J Psychiatr Res* 39:611–622, 2005.
- Biederman J, Mick E, Hammerness P, Harpold T, Aleardi M, Dougherty M, Wozniak J: Open-label, 8-week trial of olanzapine and risperidone for the treatment of bipolar disorder in preschool-age children. *Biol Psychiatry* 58:589–594, 2005.
- Birmaher B, Axelson D, Strober M, Gill MK, Valeri S, Chiappetta L, Ryan N, Leonard H, Hunt J, Iyengar S, Keller M: Clinical course of children and adolescents with bipolar spectrum disorder phenotype. *Arch Gen Psychiatry* 63:175–183, 2006.
- Geller B, Zimerman B, Williams M, Bolhofner K, Craney JL, Frazier J, Beringer L: DSM IV mania symptoms in a prepubertal and early adolescent bipolar disorder phenotype compared to attention-deficit hyperactive and normal controls. *J Child Adolesc Psychopharmacol* 12:11–25, 2002a.
- Geller B, Zimerman B, Williams M, DelBello MP, Frazier J, Beringer L: Phenomenology of prepubertal and early adolescent bipolar disorder: Examples of elated mood, grandiose behaviors, decreased need for sleep, racing thoughts and hypersexuality. *J Child Adolesc Psychopharmacol* 12:3–9, 2002b.
- Geller B, Tillman R, Craney JL, Bolhofner K: Four-year prospective outcome and natural history of mania in children with a prepubertal and early adolescent bipolar disorder phenotype. *Arch Gen Psychiatry* 61:459–467, 2004.
- Harpaz-Rotem I, Rosenheck R: Changes in outpatient psychiatric diagnosis in privately insured children and adolescents from 1995 to 2000. *Child Psychiatry Hum Dev* 34:329–340, 2004.
- Luby J, Belden A: Defining and validating bipolar disorder in the preschool period. *Dev Psychopathol* 18:971–988, 2006.
- Luby JL, Morgan K: Characteristics of an infant/preschool psychiatric clinic sample: Implications for clinical assessment and nosology. *Infant Ment Health J* 18:209–220, 1997.
- Mota-Castillo M, Torruella A, Engels B, Perez J, Dedrick C, Gluckman M: Valproate in very young children: An open case series with a brief follow-up. *J Affective Disord* 67:193–197, 2001.
- Scheffer RE, Niskala JA: The diagnosis of preschool bipolar disorder presenting with mania: Open pharmacological treatment. *J Affective Disord* 82:S25–S34, 2004.
- Thomas JM, Benham AL, Gean M, Luby J, Minde K, Turner S, Wright HH: Practice parameters for the psychiatric assessment of infants and toddlers (0–36 months). *J Am Acad Child Adolesc Psychiatry* 36:21S–36S, 1997.
- Thompson RA: The development of the person: Social understanding, relationships, self, conscience. In: *Handbook of Child Psychology* 6th ed., Vol. 3: Social, Emotional, and Personality Development. Edited by Damon W, Lerner RM, Eisenberg N. Wiley (New York), 2006, pp 24–98.
- Tumuluru RV, Weller EB, Fristad MA, Weller RA: Mania in six preschool children. *J Child Adolesc Psychopharmacol* 13:489–494, 2003.
- Wilens TE, Biederman J, Brown S, Monuteaux M, Prince J, Spencer T: Patterns of psychopathology and dysfunction in clinically referred preschoolers. *J Dev Behav Pediatr* 23:S31–S36, 2002.
- Wilens TE, Biederman J, Forkner P, Ditterline J, Morris M, Moore H, Galdo M, Spencer TJ, Wozniak J: Patterns of comorbidity and dysfunction in clinically referred preschool and school-age children with bipolar disorder. *J Child Adolesc Psychopharmacol* 13:495–505, 2003.
- Zahn-Waxler C, Cole P, Barrett K: Guilt and empathy: Sex differences and implications for the development of depression. In: *The Development of Emotion Regulation and Dysregulation*. Edited by Garber J, Dodge KA. Cambridge University Press (New York), 1991, pp 243–272.
- Zahn-Waxler C, Robinson J: Empathy and guilt: Early origins of feelings of responsibility. In: *Self-Conscious Emotions: The Psychology of Shame, Guilt, Embarrassment, and Pride*. Edited by Tangney JP, Fischer KW. Guilford Press (New York), 1995, pp 143–173.
- Zito JM, Safer DJ, dosReis S, Gardner JF, Boles M, Lynch F: Trends in the prescribing of psychotropic medications to preschoolers. *JAMA* 283:1025–1030, 2000.

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