Prepubertal Mania: Diagnostic Differences in US, UK and Japanese Clinicians

Anna María Toma
Supervisor: Takuya Saito, M.D., Ph.D.

A research project towards B.Sc. degree
University of Iceland
Faculty of Medicine
School of Health Sciences
Abstract

Anna Maria Toma
Supervisor: Takuya Saito, M.D., PhD.
1University of Iceland, Faculty of Medicine. 2Hokkaido University Graduate School of Medicine, Department of Child and Adolescent Psychiatry.

Prepubertal mania: Diagnostic differences in US, UK and Japanese clinicians

Introduction: Despite having internationally operationalized diagnostic manuals of mental disorders, there are cross-national differences in the diagnosis of many mental diseases. In the years 1996-2004, diagnosis of mania in children and adolescents increased significantly in the United States. The study raised the question of whether this significant increase in diagnosis was a universal phenomenon or specific to the US. In 2008, Dubicka B. et al. published a paper about diagnostic difference in pediatric mania between clinicians in the US and UK in the European Child & Adolescent Psychiatry Journal. This lead to more studies being conducted on this matter, and more importantly, it promoted other studies on how childhood mood disorders should be assessed. A new model for pediatric mood disorders was proposed and has been added into the DSM-5 diagnostic criteria to avoid overdiagnosis of pediatric bipolar disorder.

Objective: This study had two aims: First, to obtain a new perspective in cross-cultural differences in pediatric bipolar disorder diagnoses between two English-speaking Western countries and Japan, and second, to assess whether there is a cross-cultural difference in how pediatric depressive disorder is diagnosed.

Methods and material: A questionnaire with five case vignettes was used to evaluate difference in diagnosis of complex cases. The last vignette had a classical case of mania, which was used as a control. The vignettes in the original study were translated into Japanese and distributed to Japanese child and adolescent psychiatrists. Data from the original research was combined with the data from Japan. Statistical analyses were conducted using SPSS to test the significance of differences in each case.

Results: US clinicians generally diagnosed mania in children more often than UK and Japanese clinicians (P=<0.001). In Case 1, Case 2, and Case 4, US clinicians diagnosed mania more frequently when compared to UK and Japanese clinicians, with P=<0.001 for Cases 1 and 2, and P=0.008 for Case 4. Japanese clinicians diagnosed mania more frequently in Case 3 compared to the other two groups, with P=<0.001. UK clinicians diagnosed mania least often in all of the cases. All three groups agreed on a mania diagnosis in the last case.

Conclusion: There was a cross-national difference in how clinicians interpreted mania-like symptoms in children. These differences in perception of symptoms can lead to different diagnosis for the same case between nations, which again would have great influence on the following treatment. Therefore, it is vital to perform more cross-cultural research on mental diseases in children and adolescents.
Acknowledgements

I would first and foremost like to express my sincere gratitude to my supervisor Takuya Saito, M.D., Ph.D., for great guidance, endless patience and dedicated involvement throughout the writing of this paper. His guidance has deepened my interest in child and adolescent psychiatry and in medicine in general.

I would also like to express my gratitude to the staff, especially the doctors and the secretaries, working at the Department of Psychiatry and the Department of Child and Adolescent Psychiatry at the Hokkaido University for their good advice and my meaningful experience during my stay in Sapporo. My gratitude also goes to the staff of the International Relations Office at the Graduate School of Medicine of Hokkaido University for arranging my stay here at Hokkaido University. I would like to thank Sarah Dearne for proofreading this paper and the Watanabe Trust Fund for funding my living expenses during my stay in Sapporo.

My special thanks go to my grandmother, Michiko Toma, for supporting me and always believing in me no matter what.
Table of Contents

List of Graphs ................................................................................................................. 1

List of Tables ................................................................................................................... 1

Abbreviations .................................................................................................................. 2

1. Introduction .................................................................................................................. 3
   1.1. Bipolar Disorder I ................................................................................................. 3
       1.1.1. Bipolar Disorder I in children and adolescents in DSM-5 ......................... 4
   1.2. Difference in Mania Episode Criteria Between DSM-IV and ICD-10 ............ 4
       1.2.1. Manic episode criteria in DSM-IV ............................................................... 4
       1.2.2. Manic episode criteria in ICD-10 ................................................................. 5
   1.3. Bipolar Disorder and Attention Deficit Hyperactivity Disorder .................... 6
   1.4. Increase in Diagnosis of Pediatric Bipolar Disorder in the US ....................... 6
       1.4.1. Increase in inpatient diagnosis of BD in children ....................................... 6
       1.4.2. Increase in outpatient diagnosis of BD in Children ................................... 8
   1.5. Joseph Biederman’s influence on research of bipolar disorder in children ... 9
   1.6. Phenotypes of Pediatric Bipolar Disorder .......................................................... 9
       1.6.1. Narrow phenotype: (Hypo)Mania with Full-Duration Episodes and Hallmark
              symptoms 9
       1.6.2. Intermediate phenotypes .............................................................................. 10
       1.6.3. Broad Phenotype: Severe Mood and Behavioral Dysregulation .............. 10
       1.6.4. From Severe Mood Dysregulation and Behavioral Disorder to Disruptive Mood
              Dysregulation Disorder ....................................................................................... 11
   1.7. Differences Between the United States and the United Kingdom ................... 11

2. Objective ...................................................................................................................... 12
   2.1. Main Hypothesis for this Paper .......................................................................... 12

3. Methods ....................................................................................................................... 13
   3.1. Study Design ........................................................................................................ 13
   3.2. Approvals .............................................................................................................. 13
   3.3. Case Vignettes ..................................................................................................... 13
   3.4. Participants ........................................................................................................... 13
   3.5. The Questionnaire ............................................................................................... 14
   3.6. Statistical Tests .................................................................................................... 14

4. Results ........................................................................................................................ 15
   4.1. Main Differences in Diagnosis ............................................................................. 15
       4.1.1. Mania ............................................................................................................. 16
4.1.2. Depression .............................................................................................................. 17
4.1.3. ADHD ..................................................................................................................... 17
4.1.4. PDD .......................................................................................................................... 18
4.1.5. Behavior disorder ................................................................................................. 18
4.1.6. Psychosis ................................................................................................................. 19
4.1.7. Other key disorders ............................................................................................... 19

4.2. Differences in Diagnosis Divided by Type of Disorder ............................................. 19
4.2.1. Mood disorder ........................................................................................................ 19
4.2.2. Externalizing disorder ............................................................................................. 19
4.2.3. Comorbid disorder ................................................................................................. 20
4.2.4. More than one differential diagnosis ...................................................................... 20

4.3. Key Symptoms in Mania .......................................................................................... 21
4.3.1. Euphoria .................................................................................................................. 22
4.3.2. Irritability ................................................................................................................ 22
4.3.3. Grandiosity .............................................................................................................. 23
4.3.4. Goal-directed hyperactivity ...................................................................................... 23
4.3.5. Distractibility .......................................................................................................... 23
4.3.6. Increased talkativeness ............................................................................................ 23
4.3.7. Racing thoughts/flight of ideas .................................................................................. 24
4.3.8. Decreased need for sleep ......................................................................................... 24
4.3.9. Pleasurable activities ............................................................................................... 24
4.3.10. Psychosis ............................................................................................................... 24

5. Discussion ..................................................................................................................... 25
5.1. Summary of Results by Each Country ..................................................................... 25
5.1.1. US ............................................................................................................................ 25
5.1.2. UK ........................................................................................................................... 25
5.1.3. Japan ........................................................................................................................ 26
5.2. Possible Reasons for Difference in Diagnosis ........................................................... 26
5.3. Strength and Limitations ......................................................................................... 28
5.4. Final Words .............................................................................................................. 29

6. List of References ......................................................................................................... 30

Appendix I Questionnaire ............................................................................................... 31

Appendix II Questionnaire translated in Japanese .......................................................... 42
List of Graphs

Graph 1 Number of US acute-care inpatient discharges per 10,000 children and adolescents with a principal diagnosis of a psychiatric disorder, 1996–2004 ..........7

Graph 2 National trends in visits with a diagnosis of bipolar disorder as a percentage of total-office based visits by youths (0-19 years) Error! Bookmark not defined. .................................................................................................................8

Graph 3 Bar chart of the ratio of mania diagnosis in each case separated by groups. .....................................................................................................................................................17

Graph 4 Bart chart of ratio of Behavior Disorder diagnosis in each case ..........18

List of Tables

Table 1 List of symptoms required in Criteria B for BP-1 in the DSM-5 ..........3

Table 2 List of symptoms required in Criteria B for manic episode without psychotic symptoms (F30.1) in the ICD-10 ..............................................................................................................5

Table 3 Comparing a few symptoms that are similar in ADHD and Bipolar Disorder .................................................................................................................................................6

Table 4 Difference between US, UK and Japanese clinicians in diagnosis of key disorders. ...........................................................................................................................................................................15

Table 5 Differences in diagnosis between US, UK and Japanese clinicians on mood disorder, externalizing disorder, comorbid disorder and differential diagnosis of the first four cases ........................................................................................................................................................................20

Table 6 Difference in diagnosis of key symptoms in mania between US, UK and Japanese clinicians. ........................................................................................................................................................................21
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>Attention Deficient Hyperactivity Disorder</td>
</tr>
<tr>
<td>APA</td>
<td>American Psychiatric Association</td>
</tr>
<tr>
<td>BD</td>
<td>Bipolar Disorder</td>
</tr>
<tr>
<td>CD</td>
<td>Conduct Disorder</td>
</tr>
<tr>
<td>DMDD</td>
<td>Disruptive Mood Dysregulation Disorder</td>
</tr>
<tr>
<td>DSM-5</td>
<td>Diagnostic and Statistical Manual of Mental Disorders Fifth Edition</td>
</tr>
<tr>
<td>DSM-IV</td>
<td>Diagnostic and Statistical Manual of Mental Disorders Fourth Edition</td>
</tr>
<tr>
<td>ECAP</td>
<td>European Child &amp; Adolescent Psychiatry</td>
</tr>
<tr>
<td>ICD-10</td>
<td>International Classification of Diseases 10th Revision</td>
</tr>
<tr>
<td>MD</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>MGH</td>
<td>Massachusetts General Hospital</td>
</tr>
<tr>
<td>NOS</td>
<td>Not Otherwise Specified</td>
</tr>
<tr>
<td>OCD</td>
<td>Obsessive Compulsive Disorder</td>
</tr>
<tr>
<td>ODD</td>
<td>Oppositional Defiant Disorder</td>
</tr>
<tr>
<td>PDD</td>
<td>Pervasive Developmental Disorder</td>
</tr>
<tr>
<td>SMBD</td>
<td>Severe Mood and Behavioral Dysregulation</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
1. Introduction

Depression and mania have been recognized for thousands of years and are one of the oldest documented mental illnesses. [2] In the Humoral Theory in Ancient Greece, excess black bile was thought to cause melancholia, also known as depression. [2] Time has passed and our knowledge of the human mind and the illnesses surrounding it has deepened. However, our knowledge of psychiatric illnesses is still very limited. To make diagnosis of psychiatric illnesses more reliable and more consistent, the American Psychiatric Association and the World Health Organization have made a classification system for various mental disorders. As decades pass, the classification systems have been revised and modified multiple times. Certain phenomena that were considered mental disorders are now excluded from the guidelines (e.g. homosexuality), and previously undefined mental disorders have now been outlined. The guidelines are not perfect, which is understandable given the complex nature of mental diseases.

1.1. Bipolar Disorder I

Bipolar disorder is a mental illness characterized by alternated periods of depression and manic episodes. [1] The DSM-5 classifies seven different types of bipolar disorder, with the bipolar I disorder criteria representing the modern understanding of the classic manic-depressive disorder. [1] To be diagnosed with bipolar I disorder, the individual must have had at least one manic episode in their lifetime. Having a hypomanic episode and major depressive episodes is common for bipolar I disorder but not necessary for diagnosis. Manic episode criteria in the DSM-5 are divided in to four criteria (A-D). [1]

Criteria A is a clear period of time where abnormally and persistently elevated, expansive or irritable mood afflicts an individual for at least a week. This change in mood has to either be present for most of the day nearly every day, or be so severe that hospitalization is necessary. [1]

Criteria B requires that during the period of elevated, expansive or irritable mood, three or more of the symptoms listed in Table 1 (four if the mood is only irritable) are significantly different from the individual's usual behavior. [1]

Criteria C requires at least one of the following to exist: [1]

- Mood disturbances so severe that it causes significant harm to the persons life (social and professional)
- Person in question needs hospitalization to prevent self-harm or harm to others
- Psychotic features

![Table 1 List of symptoms required in Criteria B for BP-1 in the DSM-5][1]
Criteria D is that the episode is not caused by drug treatment or other physiological effects of a substance. [1]

1.1.1. Bipolar Disorder I in children and adolescents in DSM-5

The criteria above for Bipolar Disorder I apply for both for adults and children. However, the DSM-5 mentions important diagnostic features when diagnosing a child in order to avoid overdiagnosis of bipolar disorder for child and adolescent. Criteria A requires a period of elevated mood (euphoria), dysphoria or irritability. Children can be happy, goofy, and playful, which is normal in most situations. However, when these behavior occur inappropriate to context, recurrent, beyond what is expected of a child or just significantly different from usual behavior, these symptoms can be considered for Criteria A. [1] It's also normal for children to say they can do things that are clearly an overestimation of their abilities, for example "I can run faster than the wind" or "I can defeat a tiger". However, when these declarations become dangerous or are a significant change from normal behavior, they can be interpreted as grandiosity symptom in Criteria B. [1]

The mean age of having the first manic episode is 18 years old for bipolar I disorder. However, often first mood episode of bipolar disorder is depression. Therefore, it is trickier to evaluate children when diagnosing bipolar I disorder. The most important factor when considering manic episodes in a child is whether certain behavior is significantly different from the child’s normal behavior. [1]

1.2. Difference in Mania Episode Criteria Between DSM-IV and ICD-10.

As mentioned above, the nature of mental illness makes it difficult to diagnose diseases with a single blood test or other exams that are used to diagnose when physical diseases are diagnosed. For these reasons it is vital to use an operationalized classification system. The World Health Organization (WHO) and the American Psychiatric Association (APA) provide classifications systems which are called the International Classification of Diseases (ICD) and Diagnostic and Statistical Manual of Mental Disorders (DSM). These two manuals are the main criteria for health care providers around the world to diagnose mental diseases. However, despite the existence of these manuals, there is much controversy over the diagnosis of certain diseases.

The recruitment of the participants for this research took place before the new DSM-5 was published. Therefore, the following comparison of the DSM and ICD system criteria will be between the DSM-IV and ICD-10

1.2.1. Manic episode criteria in DSM-IV

The criteria for mania symptoms in the DSM-IV are for the most part the same as in the DSM-5. [1, 3] The only change is that Criteria C, “mixed episode,” in DSM-IV is no longer in the new DSM edition. Instead there is a new specifier, "with mixed features," has been added. This can be applied to: [1, 3]

1) episodes of mania and hypomania when depressive features are present [1, 3]

2) episodes of major depressive disorder or bipolar disorder when mania /hypomania features are present [1, 3]
1.2.2. Manic episode criteria in ICD-10

In the ICD-10, manic episode (F30) is divided to hypomania (F30.0), mania without psychotic symptoms (F30.1), and mania with psychotic symptoms (F30.2). To be considered a bipolar affective disorder (F31), the criteria of manic episode (F30) must be met, and there has to be at least one other affective episode in the past that meets the criteria for hypomania or mania episode (F30.-), depressive episode (F32.-), or mixed affective episode (F38.00). [4]

The first criteria (A) for a manic episode without psychotic symptoms (F30.1) is a mood that is predominantly elevated, expensive, and irritable and that is significantly different from the individual’s normal mood. This change in mood must be significant and last at least a week, unless the changes are so severe that hospitalization is required. [4]

The second criteria (B) for manic episodes is that at least three of the symptoms listed in Table 2 (four if the mood is only irritable) are present and interferes with individual’s ability to functioning in daily life. [4]

The third criteria (C) requires the absence of any hallucination or delusion, though this is not required when meeting criteria for mania with psychotic symptoms (F30.2). [4]

The last criteria (D) is similar to the one in DSM-5 [1]: the episodes may not be caused by drugs or any other substances. [4]

Table 2 List of symptoms required in Criteria B for manic episode without psychotic symptoms (F30.1) in the ICD-10 [4]

| 1. Increased activity or physical restlessness |
| 2. More talkative than usual or urge to keep talking |
| 3. Flight of ideas or racing thoughts |
| 4. Loss of normal social inhibitions resulting in inappropriate behavior in certain circumstances |
| 5. Decreased need for sleep |
| 6. Inflated self-esteem or grandiosity |
| 7. Distractibility or constant change in activities/plans |
| 8. Risky and foolish behavior which the subject does not recognize (spending money on ridiculous enterprises, reckless driving). |
1.3. Bipolar Disorder and Attention Deficit Hyperactivity Disorder

One of the difficulties of diagnosing bipolar disorder in children is the overlap of the core symptoms with other disorders common in children, e.g. attention deficient hyperactivity disorder (ADHD). (Table 3)

Table 3 Comparing a few symptoms that are similar in ADHD and bipolar disorder [1, 5]

<table>
<thead>
<tr>
<th>The symptoms are chronic (starts before 7)</th>
<th>The symptoms are acute or represents change from normal mood and behavior.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Difficulty in sustaining attention, mind somewhere else, easily distracted by outside stimulation.</td>
<td></td>
</tr>
<tr>
<td>2. Runs about or climbs in inappropriate situations. Often “on the go” and acts like “driven by a motor”</td>
<td></td>
</tr>
<tr>
<td>3. Difficulties with sleep, problems with settling</td>
<td></td>
</tr>
<tr>
<td>4. Talks excessively</td>
<td></td>
</tr>
<tr>
<td>5. Low frustration tolerance, temper tantrum</td>
<td>1. Distractibility</td>
</tr>
<tr>
<td></td>
<td>2. Increase in goal-directed hyperactivity or psychomotor agitation</td>
</tr>
<tr>
<td></td>
<td>3. Decreased need for sleep</td>
</tr>
<tr>
<td></td>
<td>4. More talkative than usual or pressure to keep talking</td>
</tr>
<tr>
<td></td>
<td>5. Irritable mood</td>
</tr>
</tbody>
</table>

In bipolar disorder symptoms such as increased activity, distractibility and increased impulsivity are episodic.[1] These symptoms are accompanied by other bipolar specific features. Children with ADHD show significant mood changes within the same day, which is different from mood changes in children with bipolar disorder, which must last for about four days or longer to be considered as an indicator. [1]

1.4. Increase in Diagnosis of Pediatric Bipolar Disorder in the US

1.4.1. Increase in inpatient diagnosis of BD in children

In recent years, bipolar disorder and mania in children and adolescents has become more apparent. One study performed in 2007 by Blader et al. described increased rates of bipolar disorder diagnoses among US child, adolescent, and adult inpatients in the years 1996–2004. [6] They used data from the National Hospital Discharge Survey and looked at population-adjusted rates of hospital discharges of children with a primary diagnosis of bipolar disorder. Discharges of children with mental illness were 13.9 per 10,000 children in 1996. However, in 2004 it was 21.4 per 10,000 children. The rate increased by 53.2% in eight years. Of those children discharged with mental illness, 10% were diagnosed with bipolar disorder in 1996. Eight years later, this number had risen to 34.1% of children who were discharged with mental illness[6]

The adolescents followed a similar path. In 1996, 10.24% of the adolescents that were discharged with mental illness were diagnosed with bipolar disorder. This rate rose to 25.86% in 2004, which means there was a 15.42% increase over the course of eight years. [6]
Graph 1 Shows a bar chart describing number of US acute-care inpatient discharges per 10,000 children and adolescents with a principal diagnosis of a psychiatric disorder, 1996-2004. [6]

1.4.2. Increase in outpatient diagnosis of BD in Children

The same year that Blader et al. performed research on increased diagnosis of bipolar disorder in inpatients, another study about the increase in diagnosis of bipolar disorder in outpatients in the years 1999–2003 was published. This study was conducted by Moreno et al. and used data from the National Ambulatory Medical Care Survey for the period of 1999–2003. They used data about outpatient visits to clinicians in office-based practices. The participants were people diagnosed with bipolar disorder, both minors aged 0–19 years old and adults (aged 20 years and over). The estimated number of children and adolescents who were diagnosed with bipolar disorder in office-based visits were 20 per 100,000 in the years 1994–1995. This number increased to 1,003 per 100,000 office-based visits in the years 2002–2003. This is a 40-fold increase in the number of child and adolescent outpatients diagnosed with bipolar disorder in about 9 years. The percentage of bipolar disorder diagnosis of those that came because of a mental disorder was 0.42% in 1994–1995, increasing to 6.67% in 2002–2003. The rate of bipolar disorder diagnosis compared to the total office-based visits went from 0.01% in 1994–1995 to 0.44% in 2002–2003, which is a 44-fold increase in about 9 years (Graph 2). [7]

In this study, the change of rate of diagnosis of bipolar disorder in adults was also examined. The rate increased nearly two-fold in adults, which is far less than the massive increase in the same diagnosis of children. This emphasizes the fact that something has changed in clinicians’ perspective towards pediatric bipolar disease in the US since the 1990s. [7]

**Graph 2** The bold line shows national trends in visits with a diagnosis of bipolar disorder as a percentage of total-office based visits by minors (0-19 years) and adults. [7]

Graph 2 Adapted from "National trends in the outpatient diagnosis and treatment of bipolar disorder in youth." by Moreno, C., et al. (2007). *Arch Gen Psychiatry* 64(9): 1032-1039.
1.5. Joseph Biederman's influence on research of bipolar disorder in children

When discussing bipolar disorder in children, one cannot go without mentioning the influence that Joseph Biederman, M.D. had on research of bipolar disorder in children. Joseph Biederman is currently a Chief of the Clinical Research Programs in Pediatric Psychopharmacology and Adult ADHD at the Massachusetts General Hospital and professor of psychiatry at Harvard Medical School.

Before the 1990s, research on bipolar disorder in children and adolescents were scarce. In 1995, Biederman was one of the lead authors of a published paper on mania-like symptoms and was also one of the pioneers in suggesting the childhood-onset of bipolar disorder in clinically referred children. [8] The paper had the results that 16% of psychiatrically-referred children met the criteria of mania. [8] These children with mania showed predominantly irritable and mixed features. [8] The children that met the mania criteria also often met the ADHD criteria. [8] The overall cross-sectional findings suggested that children with mania-like symptoms could suffer from an early form of bipolar disorder. [8] In the same paper [8] Biederman and his colleagues from MGH suggested that 70% of cases of mania began at or before the age of five years. [8]

In the period from 1997 to 2007, Biederman has published over 220 papers and his work has been cited over 6700 times. [9] This underlines the influence that Biederman and the MGH have had on the development of the concept of bipolar disorder in children.

1.6. Phenotypes of Pediatric Bipolar Disorder

In 2003, Leibenluft et al. published a paper proposing new phenotypes of bipolar disorder in children to counteract the problems and disagreement regarding the diagnostic criteria of the disorder in children. The proposed phenotypes are divided into narrow phenotype, intermediate phenotype, and broad phenotype (which is named as Severe Mood and Behavioral Dysregulation later). [10]

1.6.1. Narrow phenotype: (Hypo)Mania with Full-Duration Episodes and Hallmark symptoms

One of the controversies around diagnosis of pediatric bipolar disorder is the criteria in DSM-IV that requires a certain long duration of episodes and hallmark symptoms to be present in order for the individual to be diagnosed with mania and bipolar disorder. [3] Narrow phenotype of mania is also referred to as hypomania with full-duration episodes and hallmark symptoms. [10] The modifications proposed to the DSM-IV criteria for manic episode were that the individual had to meet the normal criteria for a manic or hypomanic episode and present with either elevated mood or grandiosity (which are the hallmark symptoms of mania in children). [10] One of the biggest problems that is still present today is the overlapping of mania symptoms in children with other disorders common in youths, such as ADHD. Geller et al. named few symptoms not included in DSM-IV that could differentiate bipolar disorder from those with ADHD. [11] These symptoms were grandiosity, elevated mood, flight of ideas, decreased need for sleep, hyper-sexuality, and increased goal-directed activity. Of these symptoms, elevated mood and grandiosity were the cardinal symptoms that distinguished mania symptoms from
ADHD in children and were therefore used in criteria that Leibenluft et al. proposed for the narrow phenotype. [11]

1.6.2. Intermediate phenotypes
The intermediate phenotypes are divided into two categories: 1) Mania or hypomania not otherwise specified (Short Episodes, Hallmark Symptoms) and 2) Irritable mania or hypomania (Full-Duration Episodes, No Hallmark Symptoms). [10]

1.6.2.1. (Hypo)mania Not Otherwise Specified (Short Episodes, Hallmark Symptoms)
Leibenluft et al. use the duration of mood episode to differentiate between mania/hypomania and mania/hypomania not otherwise specified (NOS). The narrow type of mania/hypomania, according to Leibenluft’s classification, follows DSM-IV’s criteria for a mania episode that lasts for at least a week or a hypomania episode that lasts at least four days. Mania/hypomania NOS have episodes that last between one to three days. By separating mania/hypomania from mania/hypomania NOS, the groups of children become more homogenous. [10] If a child has had manic/hypomanic episode that lasts less than one day, it is important to look at the child’s longest mood episode and assess whether the duration criteria has been met at some point during the child’s life. It is also important to assess whether the child has ever exhibited any of the mania symptoms listed in Criteria B. [10]

1.6.2.2. Irritable (Hypo)mania (Full-Duration Episodes, No Hallmark Symptoms)
Irritable mania/hypomania is separated from normal mania/hypomania diagnosis in this classification. Irritability is a symptom that can be seen not only in (hypo)manic children but also in children with depression, oppositional defiant disorder, ADHD and in some types of pervasive developmental disorder. [10]

1.6.3. Broad Phenotype: Severe Mood Dysregulation
One of the most important phenotypes mentioned in this paper is the broad phenotype of mania/hypomania, which Leibenluft et al. call Severe Mood Dysregulation (SMD). [10] The definition of this syndrome is vital in capturing children that fall into an unclear area of bipolar disorder diagnosis. [12] The children that are included in the definition of Severe Mood Dysregulation show non-episodic irritability and the hyperarousal symptoms of a mania episode in bipolar disorder. However, they do not have a clear episodic change in irritable/elevated mood, which is one of the main characteristics of bipolar disorder. Pediatric bipolar disorder diagnosis has increased immensely in the last two decades in the United States. [6, 7, 12] One of the possible reasons for this increase is that children with severe non-episodic irritability are included in the definition of bipolar disorder in children and adolescents. [12]

To counter this development, Leibenluft and her team at the National Institute of Mental Health (NIMH) defined this syndrome. By doing so, they had few things in mind: [10]

a) to assemble clinical descriptions and symptoms of patients and get the whole picture of those that can be diagnosed as having a broad phenotype of mania/hypomania, [10]

b) to exclude those children that fit the description of having any history of mania, [10]
c) to exclude those that started to have symptoms during adolescence, [12]
d) to require symptoms seen in mania and ADHD since those symptoms were necessary to be diagnosed as bipolar disorder with severe chronic irritability, and [12]
e) to make a higher threshold for severe irritability. [12]

Children that show non-episodic irritability have increased risk of unipolar depression and anxiety disorder in the future.[12]

1.6.4. From Severe Mood Dysregulation and Behavioral Disorder to Disruptive Mood Dysregulation Disorder

In 2009, a research paper by Stringaris et al. concluded that parent-reported irritability (not self-reported) in adolescence predicted major depressive disorder, dysthymia, and generalized anxiety disorder. Even though irritability is a common symptom with many disorders such as mania, ADHD, and ODD, the longitudinal research predicted only increased risk for depressive disorders and generalized anxiety disorders. The most fundamental point in this paper was that irritability and SMD diagnosis in childhood did not predict adult bipolar disorder or any axis II disorder. [13]

Considering the conclusions of Stringaris et al [13] and other findings about SMD the DSM-5 now has the new diagnosis of Disruptive Mood Dysregulation Disorder and the old term of SMD was not included in the DSM-5.

1.7. Differences Between the United States and the United Kingdom

Bipolar disorder in children is one of the more controversial subjects among psychiatrists and other mental health clinicians all over the world. In recent years, increased diagnosis of bipolar disorder in children has been reported in the United States. [6] This raised the question of whether this significant increase was only to be seen in the United States or if it was a global phenomenon. One study compared the diagnostic differences of prepubertal bipolar disorder between child and adolescent psychiatrists in the United States and in the United Kingdom, two English-speaking Western countries. [5] The results showed significant difference in diagnosis of bipolar disorder in children. [5] Knowing that cross-cultural difference in diagnosis exists, the next question that arose was why this is the case.

This paper will examine the cross-cultural differences in diagnosis of bipolar disorder in children and adolescents, comparing psychiatrists in the United States, the United Kingdom, and Japan. The possible reasons for these differences will also be discussed.
2. **Objective**

This study had two aims: First, to obtain a new perspective in cross-cultural differences in pediatric bipolar disorder diagnoses between two, English-speaking Western countries and Japan. Second, to assess whether a cross-cultural difference in how pediatric depressive disorder is diagnosed.

2.1. **Main Hypothesis for this Paper**

- Overall the US clinicians will diagnose mania more often compared to the other two groups.[5]
- Overall the UK clinicians will diagnose more externalizing disorders, such as ADHD and PDD, more often compared to the other two groups.[5]
- Overall the Japanese clinicians will diagnose mania less frequently than the other two groups.
- Overall the Japanese clinicians will diagnose depression less often compared to the other two groups.
3. Methods

3.1. Study Design

This study is based on the research of Dubicka, B. et al published in the ECAP journal in 2008 [5] where questionnaires with five vignettes were distributed to physicians in UK and US. The same questionnaire was translated into Japanese by two Japanese child psychiatrists working independently. Any differences in translation were discussed with another independent psychiatrist specializing in children and adolescents psychiatry. After the discussion the translation was finalized and the translated questionnaire was distributed to clinicians working at psychiatry facilities in Japan. Please refer to Appendix II for the Japanese-translated questionnaire.

3.2. Approvals

The author of this paper has the approval of Dubicka et al., the authors of the previous research paper. They were granted approval by the Committee on the Research in Human Subjects at Stony Brook University. The Institutional Review Board of the Nippon Medical School granted approval for the Japanese part of the study.

3.3. Case Vignettes

The questionnaire used in this research had five vignettes describing children aged five to twelve years old. Four of these vignettes were complex cases where disagreement of diagnosis was expected. The last vignette was a classical case of mania where diagnostic agreement was expected, and this vignette was used as a control case to assess the level of difference in diagnosis in the other cases.[5]

The first vignette was about Lynda, an 11-year-old girl who is referred for an acute manic episode.[5]

The second vignette was about Daniel, a five-and-a-half-year-old boy who is a very young child referred for acute mania.[5]

The third vignette was about Luke, a 12-year-old boy who was referred for a serious suicide attempt. [5]

The fourth vignette was about Kyle, a 10-year-old boy who was exhibiting repetitive behavior.[5]

For more details, please refer to Appendix I.

3.4. Participants

The participants in this research were mainly clinicians or psychiatrists who specialized in child and adolescent psychiatry. In the US, the participants were recruited at the American Academy of Child and Adolescent Psychiatry Institute. The participants in the UK were recruited from the members’ list of the UK Child Psychiatry Research Society. Another sample was recruited both in the US and UK from community child psychiatrists attending workshops on ADHD and BD.[5] Most of the Japanese
participants were recruited from the 30 institutions registered in the Japanese Child and Adolescent Mental Institution.

The total N for US participants is 85, total N for UK is 73 and the total N for Japan is 53.

3.5. The Questionnaire

The questionnaires, which were completely anonymous, began with instructions on how to answer the questions following each vignette. After each vignette, clinicians were asked 6 questions. To see further detail please refer to Appendix I to read the questionnaire.

3.6. Statistical Tests

To analyze the data as simply as possible, the results of the questionnaires were first input into Microsoft Excel as written in their raw state. Next, the written answers were made into categorical variables in Excel. IBM’s SPSS statistics (version 23) was used to run Chi-squared tests to analyze the significance of the difference between the three independent groups. All P-values are based on two-tailed tests.
4. Results

In this research 53 physicians in Japan completed the questionnaires and in the original research 85 US physicians and 73 physicians from UK completed the questionnaire. Total N was 213.

4.1. Main Differences in Diagnosis

Table 4 Difference between US, UK and Japanese clinicians in diagnosis of key disorders.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>US: N (%)</th>
<th>UK: N (%)</th>
<th>JAPAN: N (%)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mania</td>
<td>N = 85</td>
<td>N = 73</td>
<td>N = 51</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Depression</td>
<td>64 (75)</td>
<td>24 (33)</td>
<td>20 (39)</td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>15 (18)</td>
<td>11 (15)</td>
<td>3 (6)</td>
<td>NS (0.147)</td>
</tr>
<tr>
<td>Behavior disorder</td>
<td>79 (93)</td>
<td>58 (81)</td>
<td>45 (85)</td>
<td>NS (0.068)</td>
</tr>
<tr>
<td>Adjustment disorder</td>
<td>31 (36)</td>
<td>25 (35)</td>
<td>5 (9)</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Case 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mania</td>
<td>N = 85</td>
<td>N = 73</td>
<td>N = 53</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>ADHD</td>
<td>24 (28)</td>
<td>4 (6)</td>
<td>5 (9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>PDD</td>
<td>48 (57)</td>
<td>55 (76)</td>
<td>18 (34)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Psychosis</td>
<td>68 (80)</td>
<td>53 (74)</td>
<td>46 (87)</td>
<td>NS (0.194)</td>
</tr>
<tr>
<td>Language disorder</td>
<td>12 (14)</td>
<td>2 (3)</td>
<td>2 (4)</td>
<td>0.013</td>
</tr>
<tr>
<td>Learning disability</td>
<td>9 (11)</td>
<td>19 (26)</td>
<td>1 (2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Case 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mania</td>
<td>N = 70</td>
<td>N = 73</td>
<td>N = 53</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Depression</td>
<td>23 (33)</td>
<td>15 (21)</td>
<td>36 (70)</td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>43 (61)</td>
<td>40 (58)</td>
<td>9 (20)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Behavior disorder</td>
<td>46 (66)</td>
<td>27 (39)</td>
<td>19 (36)</td>
<td>0.001</td>
</tr>
<tr>
<td>Anxiety</td>
<td>35 (50)</td>
<td>29 (42)</td>
<td>2 (4)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Adjustment disorder</td>
<td>14 (20)</td>
<td>11 (16)</td>
<td>4 (8)</td>
<td>NS (0.187)</td>
</tr>
<tr>
<td>Learning disability</td>
<td>7 (10)</td>
<td>12 (17)</td>
<td>13 (25)</td>
<td>NS (0.099)</td>
</tr>
<tr>
<td><strong>Case 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mania</td>
<td>N = 68</td>
<td>N = 73</td>
<td>N = 51</td>
<td>0.008</td>
</tr>
<tr>
<td>ADHD</td>
<td>16 (24)</td>
<td>4 (6)</td>
<td>10 (20)</td>
<td></td>
</tr>
<tr>
<td>Behavior disorder</td>
<td>34 (50)</td>
<td>32 (46)</td>
<td>19 (36)</td>
<td>NS (0.289)</td>
</tr>
<tr>
<td>PDD</td>
<td>14 (21)</td>
<td>5 (7)</td>
<td>0 (0)</td>
<td>0.001</td>
</tr>
<tr>
<td>OCD</td>
<td>32 (47)</td>
<td>63 (90)</td>
<td>42 (80)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Anxiety</td>
<td>53 (78)</td>
<td>37 (53)</td>
<td>24 (45)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Psychosis</td>
<td>6 (9)</td>
<td>7 (10)</td>
<td>0 (0)</td>
<td>NS (0.066)</td>
</tr>
<tr>
<td>Learning disability</td>
<td>6 (9)</td>
<td>3 (4)</td>
<td>2 (4)</td>
<td>NS (0.398)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4 is based on Table 3 in Dubicka et al. with new data from the Japanese clinicians.\[5\]

<table>
<thead>
<tr>
<th>Case 5</th>
<th>N = 81</th>
<th>N = 73</th>
<th>N = 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mania</td>
<td>78 (96)</td>
<td>67 (92)</td>
<td>49 (94)</td>
</tr>
<tr>
<td>Psychosis</td>
<td>3 (4)</td>
<td>9 (14)</td>
<td>9 (17)</td>
</tr>
</tbody>
</table>

\[5\]

| a) Including comorbid and differential diagnosis.\[5\]  
| b) N= number of clinicians completing mania diagnosis, % based on respondents for each diagnosis.\[5\]  
| c) Behavior disorder = Conduct disorder and/or Oppositional Defiant Disorder,\[5\]

4.1.1. Mania

In Table 4 we can see that, as predicted for Case 1, the US clinicians diagnosed mania (mania or mixed episode) significantly more often than the other two groups. 64 (75%) US clinicians diagnosed mania, 24 (33%) of UK clinicians diagnosed mania and 20 (39%) of Japanese clinicians would diagnose this case as some kind of mania (P=<0.001).

In Case 2, 28% of the US clinicians diagnosed mania, which was 22% more than in the UK, and 27% more than in the Japanese group (P=<0.001).

There were no significant differences between the US and UK clinicians regarding mania diagnosis for the third case. The Japanese clinicians diagnosed mania significantly more often (36 (70%)) compared to the US clinicians (23 (33%)) and UK clinicians (15 (21%)) with P=<0.001. Of those that made a mania diagnosis in the Japanese group, 24.5% diagnosed it as a mania episode and 43.3% considered it to be a mixed episode.

In the fourth case, there was consistency in diagnosis of mania between the US clinicians and Japanese clinicians, but UK clinicians diagnosed significantly less mania for this vignette (P=0.008).

In the classical case of mania, Case 5, there was great consistency between all of the groups regarding diagnosis of mania. In every group, more than 90% of the clinicians diagnosed this case as mania (P=0.49).
Graph 3 Bar chart of the ratio of mania diagnosis in each case separated by groups

Graph 3 is a bar chart describing the ratio of participants that diagnosed any mania (mania episode/mixed episode) in each case, separated by participants group. N and P-value for each case can be seen in Table 4.

4.1.2. Depression

None of the cases had a significant difference between the groups regarding depression diagnosis, except in the third case. In the third case, depression was diagnosed significantly more often in both of the Western groups compared to the Japanese group (P=<0.001), in which only 20% of the clinicians diagnosed depression.

4.1.3. ADHD

ADHD was the most frequent diagnosis in Case 1 for all of the groups with no significant difference in diagnosis. (Table 4)

In Case 2, there was a significant difference between the groups in diagnosis of ADHD. UK clinicians diagnosed ADHD more often (55 (76%)) compared to their colleagues in the US and Japan (P=<0.001). However, when these diagnoses are separated into comorbid diagnosis with mania and differential diagnosis, the US and Japan diagnosed more ADHD comorbid with mania compared to the UK clinicians. 63.9% of the ADHD diagnoses of the UK clinicians were differential and the rest comorbid. 67.1% of ADHD diagnoses made by the US clinicians in this case were comorbid with mania (Table 4).

In both the third and the fourth case, the US clinicians diagnosed ADHD more often than their colleagues in UK and Japan (Table 4).
4.1.4. PDD
The only case that had any significant difference in diagnosis between the countries was in the fourth case. The difference was: 63 (90%) UK clinicians diagnosed PDD, 42 (80%) of the Japanese clinicians and only 33 (47%) of the US clinicians (P=<0.001).

4.1.5. Behavior disorder
There was no significant difference in diagnosis of behavioral disorders in the second and last cases. In the other cases, the Japanese group diagnosed behavior disorders significantly less often compared to the other two countries. The Japanese group diagnosed behavior disorder significantly less in the first case than the other two groups, that is only 5 (9%) compared to 31 (36%) of the US clinicians and 25 (35%) of the UK clinicians (P=0.001).

Only 4% of the Japanese clinicians diagnosed behavior disorder in the third case, which is significantly lower than the other two groups, which were consistent with each other in terms of diagnosis.

And similar to previous cases, no Japanese clinician diagnosed behavior disorder, which is significantly lower compared to the other two groups (P=0.001).

Graph 4 Bar chart of ratio of behavior disorder diagnosis in each case

Graph 4 is a bar chart describing the ratio of participants that diagnosed any behavior disorder (Conduct disorder and/or oppositional defiant disorder) in each case, separated by participant group.
4.1.6. Psychosis

The Japanese group diagnosed more psychosis in the first case (15.1%) compared to the US (2.4%) and UK (2.8%) clinicians. In the second case, psychosis diagnosis was significantly more frequent in the US group (14%) compared to the other two groups (P=0.013). In the last case, only 4% of US clinicians diagnosed psychosis. This is significantly lower than the other groups, in which 14% of UK clinicians and 17% of Japanese clinicians diagnosed psychosis (P=0.029).

4.1.7. Other key disorders

Some disorders had significant differences in diagnosis in specific cases. In the second case, the UK clinicians diagnosed learning disorders significantly more often, but none of the Japanese clinicians diagnosed learning disability in this case (P=0.027, Table 4). In the same case, the UK clinicians were also much more prone to diagnose language disorders compared to their colleagues in the US and Japan (P=<0.001). In the fourth case, 78% of US clinicians diagnosed OCD, which was significantly higher than the UK clinicians (53%) and the Japanese clinicians (45%).

4.2. Differences in Diagnosis Divided by Type of Disorder

4.2.1. Mood disorder

As predicted, US clinicians diagnosed mood disorders (mania, mixed and/or agitated depression) significantly more frequently compared with their colleagues in the UK and Japan and were also more prone to diagnosing comorbid disorders with mania, as can be seen in Table 5 88.2% of the US clinicians diagnosed mood disorder, and 69.4% diagnosed a comorbid disorder with it (Table 5).

In the second case, low percentages of all groups diagnosed the case as a mood disorder, with 28.2% of the US clinicians, 5.5% of UK clinicians, and 8.3% of Japanese clinicians diagnosing some kind of mood disorder in this case. Both the US and UK groups diagnosed an externalizing disorder most often for this case, while in the Japanese group 81.1% made a differential diagnosis (Table 5).

In the third case, mood disorder was the most common diagnosis among the US and Japanese clinicians. Differential diagnosis was the most common diagnosis by the UK clinicians (Table 5).

In the fourth case, 18 of the UK clinicians (27.3%) diagnosed mood disorder, which is significantly less often than their colleagues in US and Japan (P=0.005, Table 5).

4.2.2. Externalizing disorder

Disorders included in the term “externalizing disorder” are ADHD, CD, and ODD. Overall, the Japanese clinicians diagnosed externalizing disorder less often than clinicians from the other two countries. Externalizing disorder was the most frequent diagnosis by all the groups and no significant difference was found. The US clinicians diagnosed externalizing disorder significantly more often in the third case, while the Japanese clinicians diagnosed externalizing disorder significantly less often in
the second, third, and fourth cases. About 76.4% of UK clinicians diagnosed externalizing disorder for the second case (P=<0.001, Table 5).

4.2.3. Comorbid disorder
In all of the cases, the UK clinicians diagnosed comorbid disorder significantly less often than the other two groups. In the second and fourth cases, only about 3% of the UK clinicians diagnosed comorbid disorders (P=<0.001). The US clinicians diagnosed comorbid disorders more often in Case 1 than the other two groups, with 69.4% of the US participants diagnosing comorbid disorder (P=<0.001, Table 5).

4.2.4. More than one differential diagnosis
The US clinicians made a differential diagnosis significantly less often in Cases 1 and 2 compared to the other two groups. In every case, more than 50% of the UK and Japanese clinicians made some kind of differential diagnosis.

Table 5 Differences in diagnosis between US, UK and Japanese clinicians on mood disorder, externalizing disorder, comorbid disorder and differential diagnosis of the first four cases.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>US: N (%)</th>
<th>UK: N (%)</th>
<th>JAPAN: N (%)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood disorder</td>
<td>75 (88.2)</td>
<td>33 (45.2)</td>
<td>24 (47.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Externalizing disorder</td>
<td>81 (95.3)</td>
<td>60 (84.5)</td>
<td>45 (84.9)</td>
<td>NS (0.055)</td>
</tr>
<tr>
<td>Comorbid disorder</td>
<td>59 (69.4)</td>
<td>18 (25.0)</td>
<td>23 (43.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>&gt;1 Differential diagnosis</td>
<td>24 (22.4)</td>
<td>46 (63.9)</td>
<td>37 (69.8)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Case 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood disorder</td>
<td>24 (28.2)</td>
<td>4 (5.5)</td>
<td>5 (8.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Externalizing disorder</td>
<td>48 (56.5)</td>
<td>55 (76.4)</td>
<td>15 (28.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Comorbid disorder</td>
<td>17 (20.0)</td>
<td>2 (2.8)</td>
<td>16 (30.2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>&gt;1 Differential diagnosis</td>
<td>24 (34.3)</td>
<td>36 (52.2)</td>
<td>43 (81.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Case 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood disorder</td>
<td>64 (91.4)</td>
<td>50 (68.5)</td>
<td>40 (75.5)</td>
<td>0.003</td>
</tr>
<tr>
<td>Externalizing disorder</td>
<td>57 (81.4)</td>
<td>43 (62.3)</td>
<td>21 (39.6)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Comorbid disorder</td>
<td>30 (42.9)</td>
<td>13 (18.8)</td>
<td>24 (45.3)</td>
<td>0.002</td>
</tr>
<tr>
<td>&gt;1 Differential diagnosis</td>
<td>46 (54.1)</td>
<td>52 (72.2)</td>
<td>27 (50.9)</td>
<td>0.024</td>
</tr>
<tr>
<td><strong>Case 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood disorder</td>
<td>18 (27.3)</td>
<td>5 (6.8)</td>
<td>11 (21.6)</td>
<td>0.005</td>
</tr>
<tr>
<td>Externalizing disorder</td>
<td>39 (57.4)</td>
<td>36 (51.4)</td>
<td>18 (34.0)</td>
<td>0.032</td>
</tr>
<tr>
<td>Comorbid disorder</td>
<td>13 (19.1)</td>
<td>2 (2.9)</td>
<td>16 (30.2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>&gt;1 Differential diagnosis</td>
<td>45 (66.2)</td>
<td>54 (76.1)</td>
<td>40 (75.5)</td>
<td>NS (0.36)</td>
</tr>
</tbody>
</table>

Table 5 is based on Table 4 in the paper by Dubicka et al. [5] added with new data from Japan.

a) Mood Disorder = Mania and/or Depression
b) Externalizing disorder = ADHD and/or conduct disorder/oppositional defiant disorder
### 4.3. Key Symptoms in Mania

**Table 6** Difference between US, UK, and Japanese clinicians in diagnosis of key symptoms in mania

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>US: N (%)</th>
<th>UK: N (%)</th>
<th>JAPAN: N (%)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euphoria</td>
<td>27 (31.8)</td>
<td>13 (17.8)</td>
<td>7 (13.2)</td>
<td>0.02</td>
</tr>
<tr>
<td>Irritability</td>
<td>59 (69.4)</td>
<td>22 (30.1)</td>
<td>17 (32.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>58 (68.2)</td>
<td>23 (31.5)</td>
<td>19 (35.8)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>28 (32.9)</td>
<td>7 (9.6)</td>
<td>3 (5.7)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Distractibility</td>
<td>32 (37.6)</td>
<td>9 (12.3)</td>
<td>6 (11.5)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>49 (57.6)</td>
<td>25 (34.2)</td>
<td>10 (18.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Racing thoughts/Flight of ideas</td>
<td>39 (45.9)</td>
<td>18 (24.7)</td>
<td>16 (30.2)</td>
<td>0.015</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td>17 (20.0)</td>
<td>8 (11.0)</td>
<td>4 (7.7)</td>
<td>NS (0.088)</td>
</tr>
<tr>
<td>Pleasurable activities</td>
<td>51 (60.0)</td>
<td>15 (20.5)</td>
<td>15 (20.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Psychosis</td>
<td>43 (50.6)</td>
<td>14 (19.2)</td>
<td>14 (28.0)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Case 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euphoria</td>
<td>15 (17.6)</td>
<td>3 (4.1)</td>
<td>5 (9.4)</td>
<td>0.023</td>
</tr>
<tr>
<td>Irritability</td>
<td>15 (17.6)</td>
<td>4 (5.5)</td>
<td>6 (11.3)</td>
<td>NS (0.061)</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>25 (29.4)</td>
<td>7 (9.6)</td>
<td>6 (11.3)</td>
<td>0.002</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>17 (20.0)</td>
<td>4 (5.5)</td>
<td>3 (5.7)</td>
<td>0.005</td>
</tr>
<tr>
<td>Distractibility</td>
<td>12 (14.1)</td>
<td>0 (0.0)</td>
<td>5 (9.4)</td>
<td>0.005</td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>10 (11.8)</td>
<td>3 (4.1)</td>
<td>3 (5.7)</td>
<td>NS (0.161)</td>
</tr>
<tr>
<td>Racing thoughts/Flight of ideas</td>
<td>12 (14.1)</td>
<td>1 (1.4)</td>
<td>2 (3.8)</td>
<td>0.004</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td>2 (2.4)</td>
<td>1 (1.4)</td>
<td>1 (1.9)</td>
<td>NS (0.908)</td>
</tr>
<tr>
<td>Pleasurable activities</td>
<td>13 (15.3)</td>
<td>2 (2.7)</td>
<td>1 (1.9)</td>
<td>0.002</td>
</tr>
<tr>
<td>Psychosis</td>
<td>9 (10.6)</td>
<td>2 (2.7)</td>
<td>3 (5.8)</td>
<td>NS (0.137)</td>
</tr>
<tr>
<td><strong>Case 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euphoria</td>
<td>11 (15.7)</td>
<td>6 (8.3)</td>
<td>18 (34.0)</td>
<td>0.001</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>24 (34.3)</td>
<td>12 (16.7)</td>
<td>26 (49.1)</td>
<td>0.001</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>4 (5.7)</td>
<td>0 (0.0)</td>
<td>2 (3.8)</td>
<td>NS (0.135)</td>
</tr>
<tr>
<td>Distractibility</td>
<td>21 (30.0)</td>
<td>9 (12.5)</td>
<td>24 (45.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>9 (12.9)</td>
<td>6 (8.3)</td>
<td>18 (34.0)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Racing thoughts/Flight of ideas</td>
<td>23 (32.9)</td>
<td>14 (19.4)</td>
<td>29 (55.8)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td>17 (24.3)</td>
<td>13 (18.1)</td>
<td>15 (28.8)</td>
<td>NS (0.359)</td>
</tr>
<tr>
<td>Pleasurable activities</td>
<td>7 (10.0)</td>
<td>6 (8.3)</td>
<td>9 (17.3)</td>
<td>NS (0.271)</td>
</tr>
<tr>
<td>Psychosis</td>
<td>11 (15.7)</td>
<td>3 (4.2)</td>
<td>9 (17.0)</td>
<td>0.04</td>
</tr>
</tbody>
</table>

21
### Case 4

<table>
<thead>
<tr>
<th>Symptom</th>
<th>N = 68</th>
<th>N = 73</th>
<th>N = 53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
<td>4 (5.9)</td>
<td>3 (4.1)</td>
<td>6 (11.3)</td>
</tr>
<tr>
<td>Irritability</td>
<td>13 (19.1)</td>
<td>3 (4.1)</td>
<td>7 (13.5)</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>8 (11.8)</td>
<td>3 (4.1)</td>
<td>4 (7.5)</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>9 (13.2)</td>
<td>1 (1.4)</td>
<td>4 (7.5)</td>
</tr>
<tr>
<td>Distractibility</td>
<td>8 (11.8)</td>
<td>2 (2.7)</td>
<td>9 (17.0)</td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>13 (19.1)</td>
<td>3 (4.1)</td>
<td>10 (13.5)</td>
</tr>
<tr>
<td>Racing thoughts/Flight of ideas</td>
<td>9 (13.2)</td>
<td>4 (5.5)</td>
<td>8 (15.1)</td>
</tr>
</tbody>
</table>

### Case 5

<table>
<thead>
<tr>
<th>Symptom</th>
<th>N = 81</th>
<th>N = 73</th>
<th>N = 53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
<td>62 (76.5)</td>
<td>63 (86.3)</td>
<td>43 (81.1)</td>
</tr>
<tr>
<td>Irritability</td>
<td>73 (90.1)</td>
<td>61 (83.6)</td>
<td>39 (73.6)</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>67 (82.7)</td>
<td>58 (79.5)</td>
<td>45 (84.9)</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>64 (79.0)</td>
<td>51 (69.9)</td>
<td>39 (74.4)</td>
</tr>
<tr>
<td>Distractibility</td>
<td>37 (45.7)</td>
<td>25 (34.2)</td>
<td>16 (30.8)</td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>70 (86.4)</td>
<td>62 (84.9)</td>
<td>46 (86.8)</td>
</tr>
<tr>
<td>Racing thoughts/Flight of ideas</td>
<td>66 (81.5)</td>
<td>63 (86.3)</td>
<td>41 (77.4)</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td>67 (82.7)</td>
<td>61 (83.6)</td>
<td>42 (79.2)</td>
</tr>
<tr>
<td>Pleasurable activities</td>
<td>64 (79.0)</td>
<td>52 (71.2)</td>
<td>44 (83.0)</td>
</tr>
<tr>
<td>Psychosis</td>
<td>61 (75.3)</td>
<td>39 (53.4)</td>
<td>23 (46.0)</td>
</tr>
</tbody>
</table>

Table 6 lists key mania symptoms and how many participants interpreted certain symptoms in each case vignette. 

a) N = number of participants that interpreted mania symptoms, % based on respondents for each diagnosis.

### 4.3.1. Euphoria

Difference in euphoria diagnosis was significant in the first three cases. US clinicians diagnosed euphoria significantly more than the other two countries in the first two cases. About 34% of the Japanese clinicians diagnosed euphoria in Case 3, which was significantly more than the US and UK clinicians did for this particular case (P=0.001). Overall, UK clinicians interpreted euphoria from behaviors less often than the US and Japanese clinicians did. No significant difference in diagnosis was found in the last two cases (Table 6).

### 4.3.2. Irritability

Irritability was diagnosed most often in the last classical case. The US clinicians diagnosed significantly more irritability (69.4%) in the first case compared with the UK and Japanese clinicians (both about 30%, with P=<0.001). In the second case, the US clinicians also diagnosed significantly more irritability than the UK and Japanese clinicians (P=0.001). The Japanese clinicians diagnosed
more irritability than their peers in the West in the third case, with 49.1% of the clinicians interpreting irritability (P=0.001). Only 4.1% of UK clinicians diagnosed irritability in case 4, which was significantly less than the US clinicians (19.1%) and Japanese clinicians (11.3%) (P=0.021). In the last case of classical mania in an older child, there was also a significant difference (P=0.041) in interpreting irritability. US clinicians diagnosed irritability most often, with 90.1% interpreting irritability, UK clinicians following with 83.6% interpreting irritability, and lastly the Japanese clinicians with 73.6%.

4.3.3. Grandiosity
There was only a significant difference in interpretation of grandiosity in the first two cases. In both of the cases, the US clinicians interpreted more grandiosity than clinicians from the other two countries. In the first case, 68.2% of the US clinicians interpreted behavior as grandiosity, which was about twice as many than the other two countries (31.5% for UK clinicians and 35.8% for Japanese clinicians, P=<0.001). In the second case, the 29.4% of US clinicians interpreted grandiosity, which was about three times more than the other two groups (P=0.002, Table 6).

4.3.4. Goal-directed hyperactivity
There was significant difference in interpretation of goal-directed hyperactivity in all cases except the last. The US clinicians were more prone to interpret goal-directed hyperactivity in Cases 1, 2, and 4. UK clinicians and Japanese clinicians were similar in the rate of interpreting this symptom except in the third case. 45.3% of the Japanese clinicians interpreted behavior as goal-directed hyperactivity (P=<0.001). The UK clinicians interpreted significantly less goal-directed hyperactivity in the fourth case, with only 1.4% of the participants interpreting this symptom (P=0.023).

4.3.5. Distractibility
There was significant difference in interpretation of distractibility in all the cases except the last. In the first case, the US clinicians interpreted distractibility the most often (Table 6). No UK participant interpreted distractibility as symptom in the second case, unlike the US and Japanese clinicians where over 10% interpreted distractibility as symptom (P=0.005). In the third case, 18 of the Japanese clinicians (34.0%) interpreted behavior as distractibility, which was more than their Western peers (P=<0.001). UK clinicians diagnosed significantly less distractibility in Case 4, with only 2.7% of the UK participants interpreting behavior as distractibility (P=0.023).

4.3.6. Increased talkativeness
57.6% of US clinicians interpreted increased talkativeness in the first case, which was significantly higher than the other two groups (P=<0.001). In the third case, the Japanese clinicians interpreted increased talkativeness significantly more than their Western colleagues (P=<0.001). In the fourth case, the US and Japanese clinicians had similar rates in interpretation of increased talkativeness, while the UK had significantly smaller portion of participants interpreting the symptom, only 4.1% (P=<0.012). No significant difference was found in the other cases.
4.3.7. Racing thoughts/flight of ideas
45.9% of US clinicians interpreted racing thoughts / flight of ideas as symptom in the first case, which was significantly higher than in the other two groups (UK 24.7% and Japan 30.2%, P=0.015). US clinicians also interpreted this symptom more often in the second case, where about 14.1% interpreted this symptom (P=0.004). There was no significant difference was in the other cases.

4.3.8. Decreased need for sleep
UK clinicians diagnosed decreased need for sleep as symptom less than the other two groups, with 5.5% of UK clinicians interpreting the symptom, compared to about 17% of the US and Japanese clinicians (P=0.054). None of the other cases had significant difference.

4.3.9. Pleasurable activities
About 60% of the US participants interpreted pleasurable activities as a mania symptom in the first case. This was about three times more than the UK and Japanese clinicians (P=<0.001). In the second case, about 15.3% of the US clinicians interpreted pleasurable activities, which was significantly higher than the other two groups (P=0.002). UK clinicians interpreted pleasurable activities significantly less often than the other two groups in the third case (P=0.04). None of the other cases had a significant difference.

4.3.10. Psychosis
About half of the US clinicians interpreted psychosis as symptom in the first case, which is significantly higher than what the other two groups thought (UK=19.2%, Japanese=28.0%, P=<0.001). None of the UK clinicians interpreted psychosis as symptom in the fourth case, which was significantly lower than the other two groups (US=8.8% and Japanese=5.7%, P=0.041). In the last case with a classical case of mania, about 75.3% of US clinicians interpreted psychosis as symptom, compared with 53.4% of the UK clinicians and 46.0% of Japanese clinicians (P=0.001).
5. Discussion

5.1. Summary of Results by Each Country

The case vignettes in this research paper described four different children, each with complex cases of possible mania.

The last vignette about Nicole was designed to be an incontrovertible case of an older child with acute onset of mania episode, family history of depression, and classical signs of mania in an older child. There was a high level of agreement between the groups about this case being a mania. It could therefore be used to evaluate how the clinicians evaluated mania-like symptoms in the other vignettes.

5.1.1. US

As it was predicted, the US clinicians diagnosed mania more often compared to clinicians from the UK and Japan. Out of all the vignettes, the last one had the highest ratio of mania diagnosis by the US clinicians. This was predicted, as the case was a classic case of mania in an older child. The first case had the next highest ratio of mania diagnosis, with 75% of the US clinicians diagnosing mania. This was about 42% higher than the UK clinicians and 36% higher than the Japanese clinicians diagnosing mania for this case. The lowest ratio of mania diagnosis that the US clinicians made was with the fourth vignette, where about 24% of the US clinicians made a diagnosis of mania. The second case was about a boy who was referred for an acute mania episode, and it was different from the other cases because of the boy’s very young age (five years old). Regardless of the boy’s very young age, the US clinicians were much more likely to consider behavior as symptoms of mania. This behavior included, for example, jumping out of trees without fear, saying he would protect his grandmother from death, and telling the therapist that he could run faster than a car, which were interpreted by almost 30% of the US clinicians as grandiosity. The US clinicians were also much more willing to consider other disorders, such as ADHD and PDD, as comorbid disorder with mania. Overall, the US clinicians were much more willing to consider symptoms as part of mania despite the lack of information in each vignette.

5.1.2. UK

The results from the UK clinicians were in many ways contrary to the US clinicians’. The last case had 92% of the UK clinicians diagnosing mania, which was the lowest ratio of mania diagnosis within the three groups. Not including the last case, the UK clinicians diagnosed the first case as manic more often than all of the other cases. 33% of the clinicians’ diagnosed mania, which was 59% lower than in the classical case. This is significantly lower than their counterparts in the US, where the difference of mania diagnosis ratio between the classical case and the first case was only 21%. The other cases did not have a high rate of mania diagnosis by the UK clinicians. The lowest ratios of mania diagnosis were in the second and fourth case, where about 6% of UK clinicians diagnosed mania. The UK clinicians diagnosed mania significantly less often in children and adolescents in these cases compared to their colleagues. The UK clinicians were more prone to diagnose some kind of externalizing disorder, such as ADHD and PDD. Another interesting trend within the UK clinicians was how much less they interpreted behavior as part of mania. In the classical case, there was not
significant disagreement between the three groups about which symptoms were present. That is to say, the UK clinicians diagnosed as manic symptoms as often as the US and Japanese clinicians did. However, in the other cases the UK clinicians seemed to be more reluctant to interpret certain behavior as being a part of mania. The second and fourth case had an especially low rate of recognizing mania-like symptoms among the UK clinicians.

5.1.3. Japan

When comparing the two English-speaking Western countries, it was not too difficult to predict the possible outcome. Many studies have been done in each country about the diagnosis rate of pediatric bipolar disorder, and many cross-national studies have also been done about various diagnostic differences between these two countries. However, studies where Japan is compared to the US and/or the UK on this specific subject are lacking, therefore it was not as simple to predict what the outcome would be. The predictions about the Japanese clinicians were that this group would diagnose mania less frequently than clinicians from the US. We also predicted that the Japanese group would diagnose mood disorders less frequently than the other two countries.

Just like the other two groups, the Japanese clinicians diagnosed mania most often in the classical case, with a diagnosis rate of 94%, which corresponded with the other two groups. Unlike the Western countries, the case that had the highest mania-diagnosis besides the classical case was the third case. About 70% of the Japanese clinicians diagnosed mania for this case (24% less than the classical case), which was very different from the Western countries. About 39% of the Japanese clinicians diagnosed mania for the first case, a ratio similar to the UK group. This high ratio of mania diagnosis for the third case was unexpected. The most common mania symptoms that the Japanese clinicians thought were present were irritability, increased talkativeness and goal-directed hyperactivity, which was much higher than the other two countries. It seems that certain behavior of the boy in this case were interpreted by the Japanese as goal-directed hyperactivity and therefore treated as a mania symptom. The US and UK clinicians interpreted this same behavior as uneasiness caused by depression and anxiety. As Table 4 indicates, the Western clinicians agreed on the diagnosis of depression for this particular case, but the Japanese had significantly lower rates of depression diagnosis and instead remarkably high rates of mania diagnosis. The cause of this difference needs further investigation.

5.2. Possible Reasons for Difference in Diagnosis

From these results it can be concluded that there is significant cross-cultural difference in diagnosis of the same vignettes regarding mania and other mental disorders in children. In general, the psychiatrists trained in the US seemed to be more willing to give children a mania diagnosis. The UK clinicians were more prone to diagnosing externalizing disorders. Finally, the Japanese clinicians seemed to be less willing to diagnose depression and behavior disorders in children. The reason for these differences is not apparent, but we can speculate few possibilities.
The first possibility is that the difference lies in the diagnostic criteria of the DSM system and the ICD system. [5] As mentioned in the introduction of this paper, there was an enormous increase in diagnosis of prepubertal mania in the years 1996–2004. One of the objectives when changing from DSM-III to DSM-IV was to better coordinate the classification systems between the APA diagnostic manual and the ICD-10 of WHO. About 20 years later, we now have the fifth edition of DSM, and there is still considerable variation in the concept of mania in children between these manuals. The DSM classification system is symptoms based, and therefore, as long as criteria are met, there is technically no limit to how many diagnoses are made. That could be one of the reasons why US clinicians are not as hesitant as their colleagues to recognize symptoms as part of bipolar disorder. Clinicians in UK and Japan look more closely at the whole picture (episodes, family history, age of patient, etc.), which is in accordance with the ICD-10 guidelines.

The second possibility is that there is a difference in attitude towards certain subtypes of mood disorders. Japanese and UK clinicians were not as open-minded towards the general idea of there being a bipolar spectrum. A few of the participants in Japan commented in the questionnaire that they were surprised by the fact that US clinicians would diagnose mania in some of the cases as the vignettes in the questionnaire had only limited information about each case. The UK clinicians also commented that they were rejecting mania diagnosis on the conceptual level. [5] There are also differences between psychiatrists in the understanding of a certain term or a spectrum in regard to other disorders. A 1969 study that compared diagnostic differences regarding schizophrenia between American and English psychiatrists concluded that American psychiatrists had a much broader understanding of schizophrenia compared to their English colleagues. Because they viewed schizophrenia as existing on a spectrum of varying degrees of severity, they diagnosed schizophrenia significantly more frequently in the exact same patients that English psychiatrists diagnosed as having depression. [14] This study, which shone light on the inconsistency between how countries diagnose the same disease, was one of the factors that lead to the development of the DSM-III, which was made in coordination with the development of ICD-9. [15, 16] This historical study and its contribution on later modification on diagnostic criteria emphasize the importance of making cross-cultural studies and looking for any possible shortcoming in the current diagnostic criteria for any mental disorder.

The third possibility has to do with how Japanese clinicians perceive mood symptoms, especially depression symptoms, in children. One of the main hypotheses for this paper was that the Japanese clinicians would, overall, diagnose mood disorders least frequently. This did not turn out to be true in all cases. In the third case, UK and US clinicians interpreted the case as depression, while the Japanese saw it as mania. These were unexpected results and tell us that Japanese clinicians recognized mood symptoms, just like US and UK clinicians, but were not able to categorize either as depressive symptoms or manic symptoms. This might have lead to these unexpected results. One of the reasons why we predicted that the Japanese clinicians would be more reluctant than the Western clinicians to make depression diagnosis is hinted at in data from the OECD. The rate of depression diagnosis in Japan is one of the lowest in the world.[17] Despite this low diagnosis of depression Japan has one of the highest suicide rates of the OECD countries, with 20 deaths caused by suicide per 100,000 population. [18] The leading cause of death of teenagers’ aged 15–19 is suicide, and this
is also the leading cause of death within the age group of 20–39. For the age groups 10–14, suicide is the second most frequent cause of death. [19] There is an inconsistency in how Japanese clinicians perceive and diagnose mood disorder but more investigation is needed on this matter.

The fourth possibility has to do with the development of an increasing rate of bipolar disorder diagnosis in children in the US. [6, 7] Blader et al. ponder a few ideas for the reasons for this significant increase in inpatient diagnosis. One speculation was that the duration of hospitalization had become shorter than it was before, so there was more frequent re-hospitalization of those already diagnosed with bipolar disorder. [6] The second reason was that clinicians detected more bipolar disorder cases among youth and tended to refer for inpatient care for patients who were previously regarded as having only a conduct problem or other problems not related to mood disorders. [6] The third reason was that clinicians were now able to diagnose the same clinical symptoms and phenomena as bipolar disorder and not some other diagnosis. The DSM-IV was published in 1994 and allowed for broader definition of the bipolar disorder spectrum. [3, 6]

Moreno et al. had similar speculations on the reason for the significant increase in outpatient diagnosis. The first possibility that perhaps pediatric bipolar disorder was underdiagnosed before and is now correctly diagnosed. The number of publications and research paper regarding bipolar disorder in children and adolescents increased from the 1990s, and the disease and disorder has also gained more media coverage in recent years. [7] This increased media coverage may have boosted people’s awareness of bipolar disorder and consequently encouraged people to seek medical help. [7] As mentioned in the introduction of this paper, Biederman and his colleagues at MGH have been at the frontline for the diagnosis of bipolar disorder in children and are very likely one of the reasons for this increasing awareness and interest in pediatric bipolar disorder. [8] The second speculation of Moreno et al. was again similar to Blader et al. [6], that children and adolescent were being overdiagnosed with bipolar disorder. Unlike adult bipolar disorder, manic symptoms are nonspecific for bipolar disorder in children and therefore easier to diagnose as some kind of bipolar disease. Another factor in possible misdiagnosis of bipolar disorder in children is the overlapping of other common disorders in children such as ADHD, CD, and other comorbid disorders. [7]

The possibilities listed above for the reason of cross-national difference in diagnosis of bipolar disorder in children are mere speculations and further research must be done before any conclusions can be drawn.

5.3. Strength and Limitations
The research used written vignettes, so there was no opportunity for participants to ask for more details about specific symptoms. The recruitment of participants was different in each country, which could have resulted in non-equivalent groups.

This research may be small-scale, but the results do indicate diagnostic differences, and the results are in fact relevant to future research on cross-national differences in diagnosis and perception of mental disorders in children. Hopefully the results of this study, along with other studies, will encourage others to perform larger-scale research studying the cross-national difference in diagnosis.
of pediatric bipolar disorder. Correct mental diagnosis is especially vital for children and adolescents, as medical treatment depends on what mental disorder is afflicting each individual.

5.4. Final Words

Bipolar disorder and other mental disorders in children and adolescents are difficult to diagnose due to their complex nature. Many prepubertal disorders have overlapping symptoms, which can lead to misdiagnosis. The APA and WHO have made coordinating manuals to eliminate the possible cross-national difference in diagnosis of similar cases, but clearly more work needs to be done in that area. Whether children in the US are overdiagnosed with mood disorders or UK and Japanese children are underdiagnosed, psychiatrists and clinicians around the world need to be aware of the existence of cross-national differences in diagnoses and work together to refine the diagnostic criteria of mood disorders so that individuals will get the correct treatment.
6. List of References

Appendix (For Online only)

US/UK CHILDHOOD MANIA STUDY

Directions:
The diagnosis of bipolar disorder is controversial within and between the United States and United Kingdom. The following 5 cases are examples of children who presented with possible bipolar disorder (mania). It is not always clear whether the symptoms they present with are symptoms of mania, another disorder, or a disorder comorbid with mania. We have annotated those symptoms, which could be interpreted as diagnostic of mania. You may feel there are other symptoms of mania as well, but we wanted to ensure some consistency about counting specific symptoms. If you feel the child has mania/bipolar disorder, a mixed mania, an agitated depression, or another disorder, check that box. If you agree that a symptom is representative of mania, put an “X” next to the symptom in the symptom summary. We appreciate that you are only provided with limited information but for the purposes of the study, please state your preferred provisional diagnosis. If a symptom is not mentioned, or you think a symptom is due to another problem, please write that in. At the end, indicate what other disorders seem likely and what your treatment might be. If you wish to say something more about your diagnostic thinking, please do so. It has taken most people about 30-45 minutes to do this task. Thank you for taking part in this study.

Case example: Mania or stress

Background and Referral Information

Paul, aged 12. Normal infancy and milestones. In preschool, Paul was oblivious of social norms and played somewhat stereotypically (e.g. he would line his toys up in an arc and get angry if others moved them). He has always been teased which has made him sad. He was always excessively talkative, often changing the subject, interrupting with irrelevant comments, and had trouble modulating his voice. Used to collect dead bugs. When older, he became fixated on wars, and presidents. He has always had trouble with transitions and change. He notices smells, sounds and textures that most people wouldn't notice. By age 9, he suffered from separation, generalized and social anxiety. He made lists to keep him “safe”. Mild hyperactivity, inattention/disorganization were chronic problems.

This school year brought increased demands for academic output and peer acceptance. Paul started talking more, making more lists, not doing homework, and not sleeping very well. He appeared depressed and withdrawn and his paediatrician started a course of antidepressants (an SSRI). After a week or two of medication, parents observed that Paul’s excessive talking became worse, he became exhaustingly hyperactive [INCREASED TALKATIVENESS/ GOAL DIRECTED HYPERACTIVITY?], more belligerent and paranoid, had screaming and aggressive outbursts in school [IRRITABILITY?], said inappropriate things (sometimes of a sexual nature, other times being disrespectful even to his grandparents), seemed not to care about anything [EUPHORIA?], and slept only 2-4 hours at night, spending the rest of the time cooking, playing in the basement, and rearranging his closet [DECREASED NEED FOR SLEEP? GOAL DIRECTED HYPERACTIVITY?]. Parents stated that he “didn’t have a care in the world, was extremely reckless and uncaring about the consequences of his behaviors at home or at school” [EUPHORIA?], thought he had ESP [PSYCHOSIS?], or told outlandish stories about his escapades [GRANDIOSITY?].

Once medication was stopped, Paul became withdrawn again, he stopped going to school for a short while, then went physically but didn’t do anything. He comes home, puts on his pajamas and won’t come out of his room. He cries frequently, doesn’t enjoy much, and his motivation and concentration have been especially affected.
Family History
Aunt with early onset depression. Father is bad tempered. Paternal GF has obsessive-compulsive disorder. No known bipolar disorder in family.

Mental Status
Paul was tearful, spoke quietly, moved little, said he was unhappy. He feels "abnormal" and wants to get back to feeling happier again. He scored "severely depressed" on a self rating scale but linked these feelings with being teased, bullied, and rejected. He thinks this year has been worse than past years and admits that he is unable to concentrate or do much work. He endorsed many symptoms of poor concentration, disorganization, and fidgety behavior. He felt these were due to his depression, however.

Regarding behavior earlier in the year, he said, "I felt weird. I wanted to cry, laugh, and beat someone up - it changed day by day". He did not feel energetic or overactive, denied racing thoughts, flight of ideas, grandiosity, hallucinations or delusions during that period.

Paul says he worries most about being laughed at, at performing and making a mistake, of being rejected. He hates blushing in front of people, and feels too nervous to ask questions in class. He denied other anxieties.

When comfortable he was more hyperactive, distractible, disinhibited. He behaved much more like a 6 year old than a 12 year old. His language was somewhat pedantic but he otherwise related well with good eye contact.

This child appears to have had/be having:
X a manic episode?
__ a mixed episode?
__ an agitated depression?
__ no mood episode

PLEASE Put an “X” if you think the symptom is DUE TO MANIA

<table>
<thead>
<tr>
<th>Symptom</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
<td>X</td>
</tr>
<tr>
<td>Irritability</td>
<td>X</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>X</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td>X</td>
</tr>
<tr>
<td>Distractibility</td>
<td></td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td>X</td>
</tr>
<tr>
<td>Racing thoughts/flight of ideas</td>
<td></td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td>X</td>
</tr>
<tr>
<td>Xs involvement in pleasureable activities</td>
<td>Unclear</td>
</tr>
<tr>
<td>Psychosis</td>
<td>possible</td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name): possible PDD NOS; anxiety disorders as stated; R/O ADHD

If not mania, what (state): drug-induced mania that may have short term treatment implications but unclear long term implications.

Initial treatment would be (medication):
consider restarting a non SSRI antidepressant if depression continues after other non-medical interventions are tried and "covering" with a mood stabilizer like lithium.

Other intervention would be (non-medical): appropriate setting/accommodations in school; social skills group; might need testing to determine if learning disability; limit setting at home
Case #1 - Child referred for an acute manic episode.

**Background and Referral Information**

Lynda, aged 11, in mainstream school. Early puberty but no menarche. Convincing history from parents of mania not observed outside of home but hyperactivity/impulsivity is. Child acknowledges some symptoms. Parents say Lynda has been hyperactive, with poor boundaries, and disinhibited behavior since she was a toddler. Paediatrician diagnosed ADHD at a young age. Lynda has taken several stimulants since aged 8. She is behind with her school work, but IQ normal. Lynda has poor social skills and is easily overstimulated (but no PDD symptoms). At school she is oppositional and "lazy" but not disruptive in class.

Psychological testing, aged 8, described frequent impulsivity, tendencies to discuss topics unrelated to tasks she was completing, intermittent expressions of anger and anxiety, significantly elevated levels of physical activity, difficulties sitting still, and touching everything. [FLIGHT OF IDEAS, IRRITABILITY, HYPERACTIVITY?]

Over the past year, Lynda has become very angry, irritable, destructive and capricious. [IRRITABILITY?] She is provocative and can be cruel to pets and small children. She has been sexually inappropriate with peers and families including "expressing interest in lewd material on the internet, "Play Girl" magazine, hugging and kissing peers." [XS INVOLVEMENT IN PLEASURABLE ACTIVITIES?] She appears to be grandiose, telling her family that she will be attending medical school, or will become a record producer, a professional wrestler or an acrobat. [GRANDIOSITY?] Throughout this period there have been substantial marital difficulties between the parents with resultant family stress and upheaval; however, none of Lynda’s siblings have been affected to a marked extent.

Teachers report Lynda isn't doing homework, and is disorganized and distractible. However, they do not report anything beyond the ADHD symptoms that are similar to the previous years’ behavior.

**Family History**

There is a history in first-degree relatives of depression, hypomania and ADHD.

**Mental Status**

With parents present, Lynda behaved like a spoiled, hyperactive, disinhibited 4 year old. She tried to look seductive stretched out on the sofa. [XS INVOLVEMENT IN PLEASURABLE ACTIVITIES?] Affectively, she went from provocative, to clovingly loving, to appropriate, to silly, irritable, and pouty. [EUPHORIA/?IRRITABILITY?] She was extremely oppositional and argumentative and wanted to negotiate everything. [IRRITABILITY?] She could focus on what she wanted, but when she didn’t want to answer something, she would focus on irrelevant questions and tried to control the direction of conversation. There was no uncontrolled flight of ideas or thought disorder, however. Alone, Lynda admitted having trouble paying attention, following directions, remembering things, sitting still, and interrupting. She described temper problems and oppositional behavior, feeling anxious and worried about peer acceptance and school work, feeling sad, unhappy about herself, suicidal sometimes when angry, and simultaneously anergic and energetic, having trouble slowing down, flying off the handle for no reason, going from happy to sad for no reason. [MIXED DEPRESSION AND MANIA?] She denied euphoria per se. She says that her attention jumps from one thing to another, and that she talks so fast that others have trouble keeping up with her. [FLIGHT OF IDEAS/PRESSURED SPEECH?] While she described insomnia (i.e. doesn't get to sleep until 1 am), she also sleeps until 3pm the following afternoon.

Lynda also described how she hears voices (i.e. the voice of her recently dead maternal grandmother) telling her what to do.
[PSYCHOSIS?] The voice has let her smoke and drink beer with older peers and indulge sexual curiosity on the internet. She does not think the voice is her conscience. In terms of the future, she thought she could go to law school if she brought up her grades. [GRANDIOSITY?]

This child appears to have had/be having:
___ a manic episode?
___ a mixed episode?
___ an agitated depression?
___ no mood episode

PLEASE put an “X” if you think the symptom is DUE TO MANIA

<table>
<thead>
<tr>
<th>Symptom due to mania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
</tr>
<tr>
<td>Irritability</td>
</tr>
<tr>
<td>Grandiosity</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
</tr>
<tr>
<td>Distractibility</td>
</tr>
<tr>
<td>Increased talkativeness</td>
</tr>
<tr>
<td>Racing thoughts/flight of ideas</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
</tr>
<tr>
<td>Xs involvement in pleasurable activities</td>
</tr>
<tr>
<td>Any Mood congruent psychosis</td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name)

If not mania, what (name)

Initial treatment would be (medication)

Other treatment would be (non-medical)

Any comments:
Case #2 - Young child referred for acute mania.

**Background and Referral Information**
Daniel (aged 5 1/2) was referred for acute mania. He had no words until 18 months and did not use sentences until he 3 1/2. Articulation was poor, he spoke excessively, perseverated, and was echolalic. Daniel has never had any sleep or feeding problems, had never been “colicky” but was hyperactive and impulsive from infancy. Had many accidents and casualty visits. High pain threshold and often seemed indifferent to blood or cuts on his skin.

Daniel has needed supervision for his fearless behavior. He once asked a stranger to be his “daddy because he needed one”; he walks into people’s houses without being invited. [GOAL DIRECTED HYPERACTIVITY?]

In school once he “escaped” and drove a tractor that somebody left a key in. He told his grandparents recently, he could run in front of the car because he says he is “faster than cars”. He jumps off trees without fear and almost drowned when trying to dive into the ocean. [GRANDIOSITY?]

Daniel has an imaginary friend named Dolly and when he does something wrong, Daniel usually says that Dolly “did” it or “made” him do it, or he heard Dolly’s voice telling him to do it. [PSYCHOSIS?]

Daniel talks about death frequently, and tells his grandmother “Don’t worry, I will protect you”. [GRANDIOSITY?] Daniel also has a fear of thunderstorms, and a fear of the house burning.

Not infrequently, Daniel can be found grabbing his crotch and holding onto himself. This can occur when he is anxious, bored, or for no apparent reason [PLEASURE SEEKING WITHOUT REGARD FOR CONSEQUENCES?]

In school, Daniel has severe problems with hyperactivity and inattention; his teacher says he is argumentative and defiant, has strange beliefs and inappropriate affect, is disinterested in peers, has poor communication skills, perseverative interests, stereotypies, and difficulties handling change in routine.

**Family History**
Depression, eating disorder, drugs and alcohol, ADHD.

**Cognitive Testing**
WPSSI-RV-IQ 97, P-IQ 94, little scatter. Receptive language: SS 85 (16%ile); Expressive language: SS 66 (1%ile) Phonology: SS 32 (4%ile); Pragmatics: 18-24 months when he was 50 months. “He was unable to respond to contingent questions, maintain a topic, role play or use indirectives.” Social/Emotional Functioning: SS 82 (11%ile); adaptive skills 94 (34%ile). Mother was the informant.

**Mental Status**
Poor eye contact, jumpy and hyperactive most of the time, but calmer with play. Play was imaginative and interactive. Daniel’s thoughts were difficult to follow at times. He seemed to understand that his friend, Dolly, was a product of his “imagination;” “She is nothing; she is just my imaginary friend”.

He sounded grandiose when he was talking about how he can run faster than a car. He was asked, if he meant a car that is moving very, very slowly, and he said “no”, “You can or you pretend?” and his answer was, “I can”. He also said he could swim across the ocean, because “I am a very good swimmer”. [GRANDIOSITY?]

When asked if he ever hears voices when other people are not around, he said that sometimes “voices in his head” tell him to do “bad things, like hit people”, but he is able to stop his “brain” by saying: “That’s enough”. He agreed, however, that the “voices in his head” were his “own thoughts talking to him”. [PSYCHOSIS?]

He was cheerful, easily overstimulated, silly, loud and even disinhibited when was asked to throw and kick a ball in the hallway. [EUPHORIA?] Feels “mad” when his toys are
misplaced, and when Santa does not bring him presents. [IRRITABLE?] “Nothing” makes him scared. He “used to be” scared of fires “a long time ago”, but not now: “Don’t worry, granddad can put out fire. I can too, when I grow up”. Sometimes he has bad dreams about “fire and melting”. He admitted to being afraid of thunder. No other worries or anxieties were evident.

This child appears to have had/be having:

___ a manic episode?
___ a mixed episode?
___ an agitated depression?
___ no mood episode

PLEASE put an “X” if you think the symptom is DUE TO MANIA

<table>
<thead>
<tr>
<th>Symptom Due to mania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
</tr>
<tr>
<td>Irritability</td>
</tr>
<tr>
<td>Grandiosity</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
</tr>
<tr>
<td>Distractibility</td>
</tr>
<tr>
<td>Increased talkativeness</td>
</tr>
<tr>
<td>Racing thoughts/flight of ideas</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
</tr>
<tr>
<td>Xs involvement in pleasurable activities</td>
</tr>
<tr>
<td>Any Mood congruent psychosis</td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name)

If not mania, what (name)

Initial treatment would be (medication)

Other treatment would be (non-medical)

Any comments:
Case #3 - Youth referred for serious suicide attempt.

Background and Referral Information

12 yr old boy, Luke, referred for assessment following an attempted drowning. Problems started after parents separated and father moved to Australia for work 18 months earlier. There had been no contact with father since. Previously described by mother as a ‘lovely’ boy, although on closer questioning had always quite active, very chatty, and ‘getting into scrapes’. He was a frequent casualty for minor injuries as he would keep falling off walls, trees, etc. Father had been the disciplinarian and tended to deal with the children’s misbehaviour, particularly as mother had recurrent bouts of depression. According to mother, no major behaviour difficulties in primary school but teachers had noted he could be quite restless, and often did not complete his work without supervision. Now ‘out of control’ at home and at school. Mother unable to cope with his “mood swings”. If Luke doesn’t want to do something he will fly into a rage and smash things and on occasions has hit siblings and mother, once with a stick (IRRITABILITY?). Luke is easily led and gets into trouble with other boys, e.g. was ‘made to’ steal sweets and set fires. Recently, he obtained information from the internet on making fire bombs and caused an explosion in the kitchen. He also admits to spending hours on the computer devising and sending viruses to people he dislikes, in order to ‘get back at them’, seemingly unaware of the further implications of his actions (GOAL DIRECTED HYPERACTIVITY?).

Drowning incident occurred impulsively after he had been punished for throwing bricks at cars. He ran off and threw himself in a nearby river in a fit of rage. Luckily a passerby managed to pull him out with some difficulty. In between rages, Luke has been withdrawn, tearful and spending more time in his room. He has been reluctant to go out for fear of reprisals following a fight. At other times Luke can be very talkative and restless to the point where his mother can’t cope with him any more and will break down in front of him. He will follow his mother around the house, constantly pestering her, and is unable to watch television without talking constantly. (TALKATIVE, HYPERACTIVE?). His behaviour can be immature and he is often very clingy with his mother, and resentful of his siblings. Tends to behave better on a 1:1 basis. With regards to sleep, he has always gone to bed late in the evening, but recently refuses to go to bed without his mother, saying he’s too frightened and will then get up several times during the night wanting to sleep in her room. (DECREASED NEED FOR SLEEP?). Sometimes has difficulty getting up in the mornings.

At school, he has been suspended on a number of occasions recently for talking back and fighting (no such problems in primary school). Is currently on the verge of exclusion as school are unable to contain his behaviour. Has been placed in a small unit for children with behaviour problems, but continues to be disruptive (is unable to sit still for any length of time, roams the classroom, talks incessantly, swears) and refuses to do any schoolwork. Academic ability is below average.

Family history

Mother depressed, on medication. Older brother had behavioural problems.

Mental status

During the first interview, was monosyllabic, no eye contact, tearful. Fidgeted throughout the interview. Admitted to missing his father and being concerned about his mother’s crying. Over the next few interviews, much brighter and would generally be very restless, scribbling or playing with toys in quick succession, getting up frequently and unable to be interviewed for more than a few minutes, often leaving the room. (GOAL DIRECTED HYPERACTIVITY?). Constantly interrupting and changing the subject, particularly when
asked about his feelings. (RACING THOUGHTS/ TALKATIVE?). Problems with receptive language and appeared immature - would play with toys for younger children, giggle frequently, throw balls/ paper planes around the room, and often did silly things such as making faces and hanging toys from his nose. (EUPHORIA/HYPERACTIVITY/ XS INVOLVEMENT IN PLEASURABLE ACTIVITIES?). Somewhat disinhibited at times, e.g. kept trying to read the interviewers notes, asked frequent personal questions. Lost his temper repeatedly with his mother. (IRRITABILITY?).

However, on a couple of occasions presented very subdued and monosyllabic again, usually after getting into trouble and also around the anniversary of father leaving. Once fell asleep during an interview.

No further suicidal thoughts or evidence of psychosis.

This child appears to have had/be having:
____ a manic episode?
____ a mixed episode?
____ an agitated depression?
____ no mood episode

PLEASE put an “X” if you think the symptom is DUE TO MANIA

<table>
<thead>
<tr>
<th>Symptom Due to mania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
</tr>
<tr>
<td>Irritability</td>
</tr>
<tr>
<td>Grandiosity</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
</tr>
<tr>
<td>Distractibility</td>
</tr>
<tr>
<td>Increased talkativeness</td>
</tr>
<tr>
<td>Racing thoughts/flight of ideas</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
</tr>
<tr>
<td>Xs involvement in pleasurable activities</td>
</tr>
<tr>
<td>Any Mood congruent psychosis</td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name)   
____________________________________
____________________________________

If not mania, what (name)   
____________________________________
____________________________________

Initial treatment would be (medication)   
____________________________________
____________________________________

Other treatment would be (non-medical)   
____________________________________
____________________________________

Any comments:
Case #4 – Boy with repetitive behaviour.

Background and Referral Information
10 year old boy, Kyle, brought to child psychiatry clinic by his parents because of difficult, rigid behaviour at home and concerns that he would not cope with the impending transition to secondary school.

Over the past 6 months he has become increasingly oppositional and has major temper tantrums, particularly over bedtimes. He flies into rages during which he slams doors, throws things, and has hit his mother. (IRRITABILITY?). Kyle has always had a temper, but his parents have found it increasingly difficult to cope with it. Kyle refuses to go to bed before his parents (midnight). It takes some time for him to get to sleep, and he will go into his parent's room frequently. Some nights he will be up for most of the night. (DECREASED NEED FOR SLEEP?).

Arguments also occur over his "habits", which make him late for school and appointments. He has had unusual interests and routines since he was a toddler (e.g. colour of toilets, women's stockings), but these have become much more extreme. Kyle has recently started spending excessive amounts of time in the toilet (all physical investigations normal), where he will wash his hands repeatedly for up to 20 minutes, every hour. He also spends hours reorganising his bedroom every evening and loses his temper if interrupted. (GOAL DIRECTED HYPER-ACTIVITY/IRRITABILITY?).

Kyle has always been very talkative, but his parents are finding this more and more irritating, particularly when they are watching television and Kyle does not stop interrupting. (TALKATIVE?).

At school Kyle is several years behind with his reading and writing. He has always been easily distracted, fidgety, and leaves his seat repeatedly (DISTRACTIBILITY?). Recently he has been asking to leave the class every half an hour to go to the toilet. Kyle disrupts the class constantly by calling out, and making noises, e.g. police sirens.

He has never had close friends, preferring solitary play, and over the past few months has been bullied because of his behaviour. He interrupts the other children and will be overly intrusive, touching their belongings. At playtimes he tends to be on his own and will race around at top speed pretending to be a tank or rocket, and also tries to arrest other children. He will make loud noises and giggle hysterically (EUPHORIA?). Teachers say he likes to be the centre of attention and insists on making a 'grand entrance' into the classroom, interrupting everyone. (GRANDIOSITY?). There are no major problems with his temper at school, although he can get irritated if things are moved on his desk.

Psychological testing
WISC III verbal IQ 86, performance IQ 85.

Family history
Mother has depression. Father obsessive and never had many friends. Cousin has ADHD and learning problems.

Mental status
Unusual looking boy. Initially sat staring with a fixed smile. Poor eye contact was disconcerting, looking past the interviewer. Seemed anxious and did not respond to questions, however giggled frequently when his mother described his tantrums. (EUPHORIA?). Later started to fidget in his seat and picked up various toy cars and planes, making loud noises repeatedly. (GOAL DIRECTED HYPER-ACTIVITY?). Appeared immature for his age.

When his mother left the room, became very chatty, but often appeared not to understand questions, just stared blankly, or replied inappropriately, e.g. when asked how school was, described a leaking toilet at length and was impossible to interrupt. Would change the subject abruptly (e.g. laptop
computers, army, money, car seats) and it was difficult to follow his train of thought. (TALKATIVE/RACING THOUGHTS/FLIGHT OF IDEAS?). Intrusive at times and asked personal questions, e.g. where do you live, what sort of car have you got. Appeared somewhat disinhibited and unaware of social norms, e.g. told the interviewer to hurry up, asked to look at their car seats.

No overt evidence of psychosis, but on a number of occasions stopped talking mid-sentence and appeared preoccupied for a short moment.

This child appears to have had/be having:

___ a manic episode?
___ a mixed episode?
___ an agitated depression?
___ no mood episode

PLEASE put an “X” if you think the symptom is DUE TO MANIA

<table>
<thead>
<tr>
<th>Symptom Due to mania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
</tr>
<tr>
<td>Irritability</td>
</tr>
<tr>
<td>Grandiosity</td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
</tr>
<tr>
<td>Distractibility</td>
</tr>
<tr>
<td>Increased talkativeness</td>
</tr>
<tr>
<td>Racing thoughts/flight of ideas</td>
</tr>
<tr>
<td>Decreased need for sleep</td>
</tr>
<tr>
<td>Xs involvement in pleasurable activities</td>
</tr>
<tr>
<td>Any Mood congruent psychosis</td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name)
____________________________________
____________________________________
____________________________________

If not mania, what (name)
____________________________________
____________________________________
____________________________________

Initial treatment would be (medication)
____________________________________
____________________________________
____________________________________

Other treatment would be (non-medical)
____________________________________
____________________________________
____________________________________

Any comments:
PLEASE put an “X” if you think the symptom is **DUE TO MANIA**

<table>
<thead>
<tr>
<th>Symptom Due to mania</th>
<th>Other treatment would be (non-medical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euphoria</td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
</tr>
<tr>
<td>Grandiosity</td>
<td></td>
</tr>
<tr>
<td>Goal directed hyperactivity</td>
<td></td>
</tr>
<tr>
<td>Distractibility</td>
<td></td>
</tr>
<tr>
<td>Increased talkativeness</td>
<td></td>
</tr>
<tr>
<td>Racing thoughts/flights of ideas</td>
<td></td>
</tr>
<tr>
<td>Decreased need for sleep</td>
<td></td>
</tr>
<tr>
<td>Xs involvement in pleasurable activities</td>
<td></td>
</tr>
<tr>
<td>Any Mood congruent psychosis</td>
<td></td>
</tr>
</tbody>
</table>

If mania, any comorbidities? (name)  

______________________________________________________________

______________________________________________________________

If not mania, what (name)  

______________________________________________________________

______________________________________________________________

Initial treatment would be (medication)  

______________________________________________________________

______________________________________________________________

Thank you for your help. We would be grateful if you could provide us with the following information:

Your position: consultant/ academic/ SpR trainee/ other ______________________

______________________________________________________________

Number of years practicing child and adolescent psychiatry: ______________________

______________________________________________________________

Regional area of practice (eg North West)  

______________________________________________________________
教示：
どのような状態像を双極性障害と診断するかについて国による違いがあるかを調べることは本研究の目的です。以下の5つの症状は双極性障害の臨状態が疑われる子どもたちの例になりますが、症例で示されている症状は臨状態による場合、他の疾患による場合、ある
いは臨状態に合併した疾患による場合と考えられます。症例の内でも臨状態の症状と診断されるものには注目をつけております（ある程度の一貫性の中で特異的な症状を選んだため、注目をつけていない部分にも臨状態の症状と診断されるものがある場合もあります）。これ
らの症例を踏み、様々な背景がこれらの症例を双極性障害の臨状態、混合状態、激走うつ病、その
他の疾患のうちいずれと考えるか答えてください。また、臨状態の症状とされるもの
については症状の要約欄に「X」をつけてください。正確な診断をつけるには情報が必要で
もし十分ではないとは思いますが、本研究の目的のため、暫定的なもので構いませんので
最も適切と考えられる診断を記載してください。症状が本文中に言及されていないか臨状
態以外の問題によるものと考えられる場合はその旨を記載してください。最後に他の疾患の
可能性、とりうる治療法についても記載してください。もし診断についてさらに意見があ
る場合はそれをも記載していただいて構いません。なお、これらの作業には大体30-45分ほど
かかります。ご協力よろしくお願いします。

記載例：臨状態またはストレス反応
背景及び受診時の情報
12歳男児。発育発達に問題なし。就学前において彼は社会的規範に合わせることができ
ず、遊びは幾分ステレオタイプだった（例えば円型におもちゃを並べ、誰かがそれを動か
すと激怒した）。彼はいつもいじめられ、そのことを悲しく思っていた。彼は常に多弁で、
話がしばしば変わり、不適切な場面で話を遂り、声のトーンの調整が難しかった。また、
かつては死んだ虫を集め、大きくなってからは戦争と大統領に執着していた。彼はいつも
変化に戸惑っていた。多くの人が気づかないような一や音や風合いに注目した。9歳ま
でには彼は分離不安、全般性不安、社交不安に悩んでいた。彼は自身の安全を保つためのリ
ストを作っていた。軽度の多動と不注意さ、無秩序の問題が持続していた。

この年、学業成績や仲間関係で要求される水準が高まった。彼はよりしゃべるようにな
り、これまで以上にリストを作り、宿題はせず、夜更っこすすりと眠れなくなった。彼は時々
つのでひきこもりがちに見えたため、小児科医は抗うつ薬(SSRI)による治療を開始した。
薬物療法を開始して1～2週間後、両親から見て彼の行動は一層悪化し、消耗するくらい
多動になった【多弁、目標志向性の活動の増加？】。また、好戦的で無理圧迫になり、学校
で大声をあげて攻撃性を爆発させる【いいただまし？】、不適切なこと（ある時は性的な
事、別の時には彼の祖父母に対してでき失礼なことに）言う、何事も気にかけなくなる
多幸的？」、夜2〜4時間しか眠らずに料理をしたり、地下室で遊んだり、クローゼットの中に整理したりする「睡眠欲求の減少？目標志向性の活動の増加？」といったことに
も両親は気づいていた。両親によると、彼は世の中に関心を持たず、家や学校において自身の行動の結果について向こう見ずで無能【多幸的？】であり、超能力を持っていると
考え【精神病症状？】、自身の突飛な行動についての奇妙な話をしていた【誇大的？】。
いったん薬物療法を中止した後、彼は再びひきこもりがちとなり、ほんのしばらくの間
登校せず、その後登校は再開したものの学校では何もしなかった。現状彼は帰宅するとバ
ジマを着て部屋から出てこようとしなくなっている。また、頻繁に泣きわめき、十分楽
しむことができず、意欲や集中力の面で特に悪い影響が出ている。
家族歴
叔母が若年発症のうつ病。父は気難しい。父方の祖父が強迫性障害。双極性障害の家族
歴はない。
精神状態
彼は涙を浮かべ、口調は静かでほとんど動かず、自分は不幸だと言った。彼は今の自分
が「普通じゃない」と感じており、また幸せを感じられる状態に戻りたいと思っていた。
自記式の評価尺度では「重度のうつ状態」に相当していたが、それらの感情はからかいか、
いじめ、拒絶に関連したものであった。彼によると今年は昨年より悪く、集中することや、
やるべきことを十分にこなすことができないと自覚していた。彼は集中困難、無秩序、
落ち着きのない行動に関する多くの症状について肯定した。
年初の行動については、『変な感じだった。泣き叫びたくなったり、笑いたくなったり、
誰かを傷つけたくったり。日ごとに変わった』と語った。彼は活力にあふれている感覚
や過活動な感覚はなく、その期間の視覚強化、誇大性、幻覚妄想についても否定した。
彼は人から笑われること、失敗すること、拒絶されることを最も心配していた。人前で
恥ずかしい思いをすることが極度に嫌がり、教室で質問するにはあまりに神経質すぎた。
彼はその他の不安は否定した。
調子のいい時に彼はより過活動で、注意散漫で、脱抑制的であった。彼は12歳というよ
りは6歳の子どものように振る舞っていた。彼は幾分知識をひけらかすような話し方をし
たが、一方で話す際のアイコンタクトは良好であった。

本症例で認められるのは
X 躁病エピソード
__混合性エピソード
__激越うつ病
__気分障害ではない

躁状態によると考えられる症状にXをつけてください
<table>
<thead>
<tr>
<th>症状</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>多幸的</td>
<td>X</td>
</tr>
<tr>
<td>いらだたしさ</td>
<td>X</td>
</tr>
<tr>
<td>誇大的</td>
<td>X</td>
</tr>
<tr>
<td>目標志向性の活動の増加</td>
<td>X</td>
</tr>
<tr>
<td>注意散漫</td>
<td></td>
</tr>
<tr>
<td>多弁</td>
<td>X</td>
</tr>
<tr>
<td>観念奔逸</td>
<td></td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
<td>X</td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
<td>不明確</td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
<td>可能性あり</td>
</tr>
</tbody>
</table>

躁状態である場合、併存症はありますか？

PDDNOS 疑い、不安障害、ADHD の鑑別

躁状態でない場合、どのような状態と考えられますか？

薬剤誘発性躁状態、治療との短期的な関連は可能性があるが、長期的な関連については不明確

まず試みるべき薬物治療はなんでしょうか

非医療的介入によっても抑うつ状態が持続する場合は SSRI 以外の抗うつ薬を再開する
ことやリチュウムのような気分安定薬をかぶせることを考慮する。

非医療的介入についてはどうでしょうか

学校での適切な調整や支援、ソーシャル・スキル・グループ、必要があれば学習障害の
有無を調べるための検査、家庭での限界設定
症例1：急性の躁病エピソード
背景及び受診時の情報

11歳児。同級生所属。年齢は思春期にさしかかっているが学業はまだきていなかった。両親からの情報では家庭外での躁病の明確な既往はなかったが、多動・衝動性は認められていた。両親によると、幼児期から過活動であり、自由を知らず、脱抑制的な行動があった。小児科医は幼いうちにADHDと診断した。彼女は8歳から中枢制御薬を服用し始めた。彼女は学業面で遅れがあがったが、IQは正常域であった。ソーシャル・スキルが低く、容易にかんしゃくをおこした（ただしPDDの症状はない）。学校では反抗的で転倒であったが、授業の妨害はしなかった。

8歳時に施行した心理検査では、頻繁な衝動性、仕上げようとしている作業とは無関係な事柄について話す傾向、怒りや不安の間欠的な表出、身体活動の著明な著明、じっと座っていることの困難さ、なんものにも触れてしまうことがあるが記載されていた【観念奔逸、いらだたしさ、過活動？】。

昨年を通じて、彼女はとても易怒的でいらだたっており、破壊的で移り気だった【いらだたしさ？】。彼女は排除的で、ペットや小さい子どもに対して残酷なふるまいをした。彼女は友人や家族との間で性的にも不適切な言動があり、インターネット上の猥褻なコンテンツや性的内容の雑誌、友人を抱きしめたりキスしたりへの関心を示していた【快楽的活動への興奮？】。彼女は誇大に見え、家族に対して将来医学部へ行くと言ったり、音楽プロデューサーかプロレスラーか曲芸師になりたいと言ったりしていた【誇大的？】。今学期を通じて家族内のストレスや騒ぎの結果として両親の間で実際に夫婦間の問題が生じていたが、彼女の同胞はそのことではほとんど影響を受けていなかった。

教師達は彼女が宿題をやらず、無秩序で注意散漫であると報告していた。しかし、それは前年度同様のADHD症状であり、それ以外には何も報告していなかった。

家族歴

近親者にうつ病、軽躁病、ADHDの家族歴がある。

精神状態

両親が言うには、彼女は甘やかされて過活動で脱抑制的な4歳児のようにふるまっていった。彼女はソファの上に身を投げ出し、魅惑的に見せようとしているようだった【快楽的活動への興奮？】。情緒的に彼女は排除的かつ思えば過度に親しみにしたり、適切にふるまったり、仮想をついたり、いらだったり、不機嫌になったりした【多様的、いらだたしさ？】。彼女は極端に反抗的で誹謗好きでどんなことでも交渉しようとし【いらだたしさ？】。彼女は自分が望むことであれば集中したが、答えたくないことがあるときに無関係な質問に集中し、会話の流れを相手に変えようとした。しかし制御できないような観念奔逸や思考障害は認められなかった。彼女は注意を払うこと、指示に従うこと、物事を覚えておくこと、じっと座っていること、途中でやめることが難しいことを自分から認めた。彼女はかんしゃくと反抗的行動、友人から受け入れられることや学業への不安
や心配、悲観や不幸せさを感じること、怒っている時に時々生じる自暴自棄、同時に現れる無反応さと活発さ、落ち着くことの難しさ、理由もなく不快となること、理由もなく幸せになったり悲しくなったりすることについても述べた【躁うつ混合状態？】。多幸感については否定した。彼女は注意がありすることから他のことへ飛んでしまうこと、あまりに早く話すので他の人は彼女の話についていけないことを話した【観念奨励、談話促迫？】。彼女は不眠（1時まで眠れない等）について述べていた一方で、そうした日の午後は3時まで寝ているとのことだった。

彼女は彼女に何をすべきか言っている声（最近亡くなった母方祖母の声等）がどのように聞こえるかについても述べた【精神病症状？】。声は彼女が年上の友人と煙草を吸い、ビールを飲むことや、インターネットで性的な好奇心に身をゆだねるように仕向けるとのことだった。彼女は声が彼女の良心だとは思っていなかった。将来については、進級できたら法科大学院に進みたいと考えていた。

本症例で認められるのは
_躁病エピソード
_混合性エピソード
_激越うつ病
X気分障害ではない

躁病状態によると考えられる症状にXをつけしてください

<table>
<thead>
<tr>
<th>症状</th>
</tr>
</thead>
<tbody>
<tr>
<td>多幸的</td>
</tr>
<tr>
<td>いらだたしさ</td>
</tr>
<tr>
<td>豪大的</td>
</tr>
<tr>
<td>目標志向性の活動の増加</td>
</tr>
<tr>
<td>注意散漫</td>
</tr>
<tr>
<td>多弁</td>
</tr>
<tr>
<td>観念奨励</td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
</tr>
</tbody>
</table>

躁病状態である場合、併存症はありますか？

躁病状態でない場合、どのような状態と考えられますか？
ADHD

まず試みるべき薬物治療はなんでしょうか
非医療的介入によっても問題行動が継続する場合は、気分安定薬や少量の抗精神薬。

非医療的介入についてはどうでしょうか
ソーシャル・スキル・グループ、家族教育による自宅での限界設定

その他コメント
症例2：幼児の急性躁病
背景及び受診時の情報
5歳6か月の男児。急性躁病として紹介されてきた。彼は18か月までしゃべらず、3歳6か月まで単語しか話せなかった。発音がうまくいかず、話す際に過度に繰り返しが認められ、反響言語が認められた。睡眠や摂食の問題は認められず、さしこみを起こしたことなかったが、幼少期から多動で衝動的であり、事故やけがが多かった。痛みに鈍感で、しばしば出血や切り傷に無関心なように見えた。
彼は恐れを知らない行動が目立ち、監視が必要であった。彼は以前に見ず知らずの人に自分の父親になってほしいと願っていたことがあり、招かれてもいないのに他人の家に上がり込むことがあった【目標志向性の活動の増加？】。学校ではかすかに脱走して誰かがキーをさしたままにしておいたトラクターを乗り回したことがある。彼は『車より速い』と言ったから車の正面を走されると最近祖父母に言っていた。彼は恐れることなく木から飛び降り、海に飛び込むうとしてほとんど溺れかけた【誇大的？】。
彼にはドリーと言う名のイマジナリーフレンドがあり、何か悪いことをするとき、大抵ドリーがやったらドリーが彼にやらせたと言う【精神病症状？】。
彼はしばしば死について話し、祖母には『僕が守ってあげるから大丈夫』と言っている【誇大的？】。彼は激しい雷雨と家が火事になることを恐れていた。
彼は夜間をかんじて隠し続けることが少なくて見受けられた。この行動は彼が不安な時や退屈な時、あるいは特に理由がないときに現れた【結局を気にせず快楽を求める？】。
学校において、彼は多動さと不注意さに関する重篤な問題を抱えており、担任は彼が論争好きで挑戦的であり、奇妙な信念や不適切な感情を持っており、仲間に興味を持たず、コミュニケーション能力が低く、興味が固定的で、ステレオタイプで、予定の変化にうまく対処できないと述べた。
家族歴
うつ病、摂食障害、薬物・アルコール関連障害、ADHD の家族歴あり。
認知機能検査
WPPSI-RにてVIP97、PIQ94でほとんどの方がなかった。言語受容：SS85（16パーティクル）、言語表現：SS66（1パーティクル）、語言論：50か月時点で18.24か月相当。彼は付随的な質問に答えること、一つの活動を続けること、役割を演じること、婉曲的な表現を使うことができなかった。社会機能・情緒的機能：SS82（11パーティクル）、適応能力94（34パーティクル）。母親が情報提供者。
精神状態
視線が合いにくく、ほとんど終始飛び跳ねていたが、遊びでは落ち着いていた。想像的な遊びと相互的な遊びもできた。彼の思考は時にはいくのが難しかった。彼は彼の友人のドリー彼自身の想像が生み出したものと分かっているようであり、彼
女はいないんだ。僕の想像上の友達なんだ」と語った。
いかに車よりも速く走れかかる話をしていた時の彼は誇大的に見た。車がとても速く走
っている場合のことなのか尋ねられると、彼は『違う』と答え、本当にできるのか想像の
話なのかを尋ねられると『本当にできる』と答えた。海を泳いで渡ると言った時には、『僕
は泳ぎの名人だから』と答えた【誇大的？】。
周囲に誰もいない時に声が聞こえることがあるか尋ねられた時、彼は時々『頭の中の
声』が人を叩く音の悪いことを彼にするように言うのだと話したが、彼は『もういい』と
言うことで自分の『頭』を止めることができるとのことだった。彼は『頭の中の声』が『自
分自身の考えが自分に話しかけている』ということを認めていた【精神病症状？】。
廊下でボールを投げたり蹴ったりしたことについて尋ねられた際は、彼は朗らかで、易
刺激的で、思慮なく、騒々しく、脱抑制的でさえあった【多幸的？】。自分のおもちゃが
違う場所に置かれていったり、サンタクロースがプレゼントを持ってこなかったりしたら、
彼は気が狂ったように感じることになった【いらだたしさ？】。彼には恐れるものは何
もなく、ずっと以前は火が怖かったが、今は『おじいちゃんが火を消すことができるから
大丈夫。大きくなったから僕だってできる』と言った。時々彼は『燃えて溶ける』悪夢を
見た。彼は誰が怖いことは認めた。他の心配や不安は認められなかった。

【本症例で認められるのは
_ 躁病エピソード
_ 混合性エピソード
_ 激越うつ病
X 気分障害ではない

【躁状態によると考えられる症状にXをつけてください

<table>
<thead>
<tr>
<th>症状</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>多幸的</td>
<td></td>
</tr>
<tr>
<td>いらだたしさ</td>
<td></td>
</tr>
<tr>
<td>誇大的</td>
<td></td>
</tr>
<tr>
<td>目標志向性の活動の増加</td>
<td></td>
</tr>
<tr>
<td>注意散漫</td>
<td></td>
</tr>
<tr>
<td>多弁</td>
<td></td>
</tr>
<tr>
<td>視覚・聴覚</td>
<td></td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
<td></td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
<td></td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
<td></td>
</tr>
</tbody>
</table>
症例3：重度の自殺企図
背景及び受診時的情報
12歳男児。入水を試みた後に評価目的で紹介となった。問題は両親が別居し、父親が18か月前にオーストラリアに転勤したことから始まった。それ以降父親とは全く連絡がとれていなかった。母親はかつて彼を「かわいらしさの子」と表現したが、最近ではいつでも非常に活動的で、おしゃべりで、面倒に起こす子であると表現した。彼は壁や木から飛び降りる等でしっかりとした怪我をしていた。彼の父親は厳格な人であり、子ども達のよくない行動に対しては父親が対処することが多く、母親がうつ病を繰り返すようになってからは特にそうしていた。母親によると小学校では目立った行動上の問題は認められなかったとのことだったが、教師は非常に落ち着きがなく一人で課題を最後までこなせないことが多かったことを指摘していた。そして今や家でも学校でもコントロールができない状態となっていた。母親は彼の気分の波に対処できなくなっていた。彼は何かやりたくなくて、怒り出して物を打ち壊し、時には兄弟や母親を叩くこともあり、かつて棒を使ったこともある【いらだつしさ？】。彼は簡単に怒られても他児と問題を起こし、例えば過去にはお菓子を盗むよう仕向けられたり、火をつけるよう仕向けられたりした。最近では、彼はインターネットから爆弾の作り方の情報を得て、台所で爆発を起こした。彼は嫌いな人への仕返し（一見してこの行動の隠された意味はわからないだろう）のために、何時間もコンピューターに向かってウィルスを作って彼らに送ることも認めた【目標志向的行動の増加？】。
車にレンガを投げたことで叱られた後、衝動的に入水を試みたことがある。彼は逃げ出し、かっとなって近くの川に身を投げた。幸運にも通りすがりの人が若千の困難はあったもののなんとか彼を引き上げた。
怒りがある時期の合間は、引きこもって涙ぐみ、部屋で過ごす時間がようになった。そういう時の彼はけんかの後の仕返しを恐れて外出したがらなかった。そうした時期を除いて、彼は非常に多弁で彼の母親が何もや対処できず、彼の前で泣き崩れるほど落ち着かない状態になった。彼は家中母親について回り、しっかり彼女を悩ませ、ずっと話し続けてゆっくりテレビも見られない状態になった【多弁、過活動？】。彼の行動は幼く、しばしば過度に母親にまとわりつき、兄弟に対しては易怒的であった。基本的には1：1の方がうまく振る舞える傾向があった。
睡眠に関しては、いつも夜遅くに寝ていたが、最近になって母親がいないと寝るのを拒むようになり、夜に何度か目が覚めるのを彼は非常に怖がっていて、母親の部屋で寝たいのだと言っていた【睡眠欲求の減少？】。時には朝起きられないこともあった。
学校では、口答えやけんかで何度も停学になっていた（小学校時にそのような問題はなかった）。彼はこのところ学校から追い出される寸前となっており、学校は彼の行動を抑えることができなくなった。彼は行動上の問題のある子ども達のための小グループに入ったが、破壊的なところ（片時もじっと座っていられない、教室を歩き回り、絶え間なく話
し、毒づく）は変わっておらず、学業を拒絶していた。学校での成績は平均以下であった。

家族歴

母親がうつ状態で薬を受けている。兄にも行動上の問題がある。

精神状態

最初の面接の際、彼はそっけない返答で、視線は合わず、涙ぐんでいた。面接の間ずっとそわそわしていた。彼は父親が恋しいことに母親が泣くのを心配していることを認めた。

続く数回の面接の後、彼はずっと明るくなり、全体に非常に落ち着きがなくなり、続けざまに落書きをしたりおもちゃで遊んだりし、頻繁に立ち上がって数分以上話を聴くことができず、しばしば部屋から出ていった【目標志向性の活動の增加？】。緊張を話し、話題を変え、特に気分について尋ねた時にそれが顕著だった【観念奔放、多弁？】。言語受容の問題があり、年齢よりも幼く見えた（幼児のようにおもちゃで遊び、頻繁にくすぐす笑い、ボールや紙飛行機を部屋のあちこちで投げ、しばしばおおかな顔をしたり鼻におもちゃをぶら下げたりといったばかげたことをした）【多弁的、過活動、快楽的活動への熟中？】。時々うわわか脱抑制的となり、例えば面接者のノートを読もうとしきこく試みたり、何度も個人的な質問をしてきた。母親に対して繰り返し怒りを向けた【いらだたしさ】。

しかし、面接を繰り返す中では、再び非常におとなしく、そっけない返答となることがある何度かあり、大抵は叱られた後か、父親がいなくなった日の周辺だった。面接中に眠ってしまったことも一度あった。

他に希死念慮や精神病症状は認められなかった。

本症例で認められるのは

□躁病エピソード
X混合性エピソード
□激越うつ病
□気分障害ではない

躁状態によると考えられる症状にXをつけてください

<table>
<thead>
<tr>
<th>症状</th>
</tr>
</thead>
<tbody>
<tr>
<td>多弁的</td>
</tr>
<tr>
<td>いらだたしさ</td>
</tr>
<tr>
<td>誇大的</td>
</tr>
<tr>
<td>目標志向性の活動の増加</td>
</tr>
<tr>
<td>注意散漫</td>
</tr>
<tr>
<td>多弁</td>
</tr>
<tr>
<td>観念生逸</td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
</tr>
</tbody>
</table>

躁状態である場合、併存症はありますか？

躁状態でない場合、どのような状態と考えられますか？

まず試みるべき薬物治療はなんでしょうか

非医療的介入についてはどうでしょうか

その他コメント
症例4: 反復行動のある少年

背景及び受診時の情報

10歳男児。家での気難しく融通のきかない行動と中学校に進級した後うまくやっていけないのではないかという心配を主訴に彼の両親に伴われて児童精神科の診療所に来院した。過去6か月間におわたって、彼はどんなに反抗的にも、特に就寝時に強いがらんしゃくをするようになった。彼はドアを勢いよく閉め、物を投げ、母親を叩き、その間激しく怒った【いられたら？】。彼はいつも気が短いが、そうした気の短さにどんな対処しきくくなっていると両親は感じていた。彼は深夜に寝る両親より先に寝るのを拒んだ。彼は寝付くのには時間がかかり、両親の部屋に頻繁にやってきた。ほぼ一晩中起きていることも時々あった【睡眠欲求の減少？】。

彼の習慣を巡っても口論が起きていた。その習慣のために彼は学校や部屋に遅れることも多かった。彼には幼児期から普通でない異味や手順が認められていた（例えばトイレの色や女性のストッキング）、それらがさらに強く認められるようになった。最近彼は過剰に長い時間トイレですごすようになり（身体的検査では全く異常はない）、1時間ごとに20分かけて繰り返し手を洗おうとした。また、彼は毎晚何時間もかけて寝室の模様替えをし、邪魔されると怒りをあらわにした【目標志向性の活動の増加、いらだたしさ？】。

彼はいつも非常におしゃべりだったが、両親から見るとそれがどんどん不快な程度にひどくなってきていると感じており、特に両親がテレビを観ているときに邪魔することをやめられなくなっていた【多弁？】。

学校においては読書書きに関して数年遅れが認められていた。彼はいつも簡単に注意がそれ、落ち着きがなく、繰り返し離席していた【注意散漫？】。最近彼はトイレに行くために30分ごとに退室を願い出ていた。大声を出ししたり、警察のサイレン等の音を立てたりしていていつも授業を混ざさせていた。

彼には親しい友達がいなかったが、一人で遊ぶことを好み、ここ2,3か月は彼の行動が原因でいじめられていた。彼は他児を巡り、過度に出しゃばって、人のものに触ろうとした。休み時間に彼は一人で過ごすことが多く、戦車やロケットのぷりをして全速力で競争し、他児を捕まえようとした。彼は大きなことを立って、異常に興奮してくすぐく笑った【多幸的？】。教師によると、彼は注目の中心になっていることを好み、教室への正面玄関を作ってみんなが入れないようにする言い張っていた【誇大的？】。学校で短気さについては大きな問題となっていないが、彼の機に物が置かれるというだっただことがあった。

心理検査

WISC-Ⅲにて、言語性IQ86、動作性IQ85。

家族歴

母親がうつ病。父親が強迫的で友人が少ない。いところADHDで学習上の問題がある。

精神状態

変わった外見の少年。はじめのうちは座ってひきつった笑顔でこちらをじっと見ていた。
視線の合いにくさは当惑を感じさせるもので、彼は面接者の向こう側に視線を向けていた。
不安げに見え、質問に応じない一方で、母親が彼のかんしゃくについて述べていた時には
何度もくすぐ笑っていた【多幸的？】。その後椅子の上で落ち着かなくなり、様々なおもちゃの車や飛行機を手に取り、続々と大きな音を立てた【目標指向性の活動の増加？】。
彼は年齢に比べて幼く見えた。

母親が部屋から出た際に、彼は非常におしゃべりになったが、一方でしばしば質問を理
解していないように見え、ただぼんやりと視線を向け、適切に答えることができなかった。
例えば学校での様子を尋ねられ、水漏れのするトイレについて詳細に語り、それを止めることができなかった。話題は突突に変わり（ノートパソコン、陸軍、お金、車の座席等）、
彼の思考の流れについていくのが難しかった【多弁、観念奔走？】。時に差し出がまししく、
どこに住んでいるか、どんな種類の車を持っているか等、個人的なことを尋ねてきた。
いくつかの抑制的で、社会的規範を気にしない様子であり、例えば面接者に急ぐよう言ったり、車の座席を見せてくれるよう頼んだりした。

明らかな精神病症状の所見は認められなかったが、文章の途中で話すのをやめてしまい、
しばらく何かに夢中になっているように見えることが多いあった。

本症例で認められるのは
X 躁病エピソード
混合性エピソード
激越うつ病
気分障害ではない

躁状態によりと考えられる症状にXをつけてください

<table>
<thead>
<tr>
<th>症状</th>
</tr>
</thead>
<tbody>
<tr>
<td>多幸的</td>
</tr>
<tr>
<td>いらだたしさ</td>
</tr>
<tr>
<td>誇大的</td>
</tr>
<tr>
<td>目標指向性の活動の増加</td>
</tr>
<tr>
<td>注意散漫</td>
</tr>
<tr>
<td>多弁</td>
</tr>
<tr>
<td>観念奔走</td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
</tr>
</tbody>
</table>

躁状態である場合、併存症はありませんか？PDDNOS、強迫性障害の鑑別
週間で彼女の性格がすっかり変わってしまったと述べた。以前の彼女はいつも内気で進んで手伝いをし、トラブルは無縁の子どもであり、違法な薬物を使用した兆候は認められなかった。彼女は学校でいつもうまくやっており、成績は上位で、他の生徒や教師から非常に好かれていた。発達についても正常であった。しかしながら、10歳の頃、祖母の死後にあるうつ病エピソードを呈し、精神療法による治療を受けた。

彼女は中学校への進級をストレスに感じており、特に彼女は常に成績が優秀であったため、成績が落ちることを心配して予習に何時間も費やしていた。さらに、彼女の両親は不仲で、別居について話し合っていた。

両親は今や彼女と一緒に住むのは不可能であり、彼女の安全が心配だと語った。彼女は明るい色の非常に露出の多い服を着ており、短期間ですすぐ買い替えをしていた（以前の彼女はファッションに全く興味がなかった）。彼女は全く知らない人に対しては長々と話し、インターネットのチャットルームを介して大勢の男子とデートの約束を取り付けていた。そのチャットルームで彼女はあけすけな言葉を使い、何時間もそこで時間を費やしていた【快楽的活動への熱中、目標志向性の活動の増加？】。

彼女の気分は一日の中でも急激に変化した。ある瞬間は興奮気味に笑っていたかと思うと、次の瞬間には非常にいちだち、悪態をつき、物をたたいていたこともあった【多幸的、いらだたしさ？】。また別の時には、簡単に悩みこみ、感情を抑えきれずに泣きじゃくっていた【混合状態？】。

睡眠のパターンも変化し、夜遅くまで起きて朝方までチャットルームでチャットをしていた。彼女は2、3時間しか寝ていなかったが、朝早くに起き家を掃除始め、朝の6時に掃除機をかけて近所の人たちを起こしていた【睡眠欲求の減少、目標志向性の活動の増加？】。

家族歴

両親ともにうつ病で治療を受けていた。

精神状態

面接に先立ち、彼女は待合室から彼女が大声で笑っているのが聞こえた。彼女は外見について失礼なことを言い、他若いを恐まズれていた。彼女が入室した時、面接者の机に腰掛け、携帯電話で話し、大声で笑った【多幸的？】。彼女は早口で話し、彼女の思考の流れについていくのが難しく、まるで関係のないようなものに話題がこころと変わった【多弁、観念奔逸】。彼女はテレビシリーズに出ているある俳優に特に夢中になっており、かつて彼と連絡を取ろうとしたこともあったのだが、彼女は彼と付き合うのも時間の問題だと言っていた【詭大的？】。彼女は話している最中に、鮮やかな色の様々な湯巻きを指差すように描いていた【目標志向性の活動の増加？】。しばらくして、彼女の気分は劇的に変化し、非常に疑い深く敵意を示すようになった。それは特に彼女が断固として否定した薬物の乱用について尋ねられた時に認められた【いらだたしさ？】。彼女は両親が両親とだけ会うこと許さず、同様に彼女一人だけで面接を受けることも望まなかった。彼女は食べ物に添
加物が入っていて、それが彼女にとって有毒で、彼女の脳の働きを妨げることに対する恐れを述べた【気分に一致した精神病症状】。

本症例で認められるのは
- 躁病エピソード
- 混合性エピソード
- 激越うつ病
- 気分障害ではない

<table>
<thead>
<tr>
<th>症状</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>多幸的</td>
<td></td>
</tr>
<tr>
<td>いらだたしさ</td>
<td></td>
</tr>
<tr>
<td>誇大的</td>
<td></td>
</tr>
<tr>
<td>目標志向性の活動の増加</td>
<td></td>
</tr>
<tr>
<td>注意散漫</td>
<td></td>
</tr>
<tr>
<td>多弁</td>
<td></td>
</tr>
<tr>
<td>慮念原発</td>
<td></td>
</tr>
<tr>
<td>睡眠欲求の減少</td>
<td></td>
</tr>
<tr>
<td>快楽的活動への熱中</td>
<td></td>
</tr>
<tr>
<td>気分に一致した精神病症状</td>
<td></td>
</tr>
</tbody>
</table>

躁状態である場合、併存症はありますか？

躁状態でない場合、どのような状態と考えられますか？

まず試みるべき薬物治療はなんでしょうか

非医療的介入についてはどうでしょうか

その他コメント
ご協力ありがとうございました。よろしければ以下の項目についてもご記入ください。

職名：精神保健指定医、精神科専門医  児童青年精神医学会認定医 後期研修医
その他________________________________

児童青年精神科医療の臨床経験：________________________

勤務地域：________________________________________