# Comorbidity and Misdiagnosis of Pediatric Bipolar Disorder among a Sample of ADHD Children and Adolescents

***Thesis***

**Submitted for partial fulfillment of M.D degree in Psychiatry**

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# المصاحبة المرضية وسوء تشخيص الاضطراب الوجداني ثنائي القطب في عينة من الأطفال والمراهقين المشخصين بفرط الحركة ونقص الانتباه

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# LIST OF ABBREVIATION

| | |
|---|---|
| **ADD** | : Attention Deficit Disorder. |
| **ADHD** | : Attention Deficit Hyperactivity Disorder. |
| **BAD** | : Bipolar affective disorder. |
| **BAD NOS** | : Bipolar affective disorder not otherwise specified. |
| **BD** | : Bipolar disorder. |
| **BADI** | : Bipolar affective disorder type I. |
| **BADII** | : Bipolar affective disorder type II. |
| **BDNF** | : Brain derived neurotrophic factor. |
| **CABF** | : Child and adolescent bipolar foundation. |
| **CBT** | : Cognitive behavior therapy. |
| **CD** | : Conduct disorder. |
| **CMRS** | : Child Mania rating scale. |
| **CPRS-L** | : Conner's Parent Rating Scale -revised -long version. |
| **CPT** | : Continuous performance test. |
| **DSM-IV** | : Diagnostic and statistical manual of mental disorders IV. |
| **ECT** | : Electroconvulsive Therapy. |
| **EF** | : Executive functions. |
| **FDA** | : Food and drug administration. |

| | |
|---|---|
| **GAF** | : Global assessment of functioning. |
| **IQ** | : Intelligence quotient. |
| **JBPD** | : Juvenile onset bipolar disorder. |
| **K-SADS-PL** | : Kiddies Schedule for Affective Disorders and Schizophrenia, Present and Lifetime versions. |
| **MPH** | : Methylphenidate. |
| **MTA** | : Multimodal treatment study of children with ADHD. |
| **NEAs** | : Neurological examination abnormalities. |
| **MDD** | : Major depressive disorder. |
| **ODD** | : Oppositional defiant disorder. |
| **PANESS** | : Physical and Neurological Examination for Soft Signs. |
| **PBD** | : Pediatric bipolar disorder. |
| **PEA-BP** | : Pre-pubertal and early-adolescent bipolar. |
| **PDD** | : Pervasive developmental disorder. |
| **ROC** | : Receiver operating characteristic. |
| **SCID-I** | : Structured clinical interview for DSMIV. |
| **SR** | : Sustained-release. |
| **SPSS** | : Statistical package for social sciences. |
| **SSRIS** | : Selective serotonin reuptake inhibitors. |
| **WISC** | : Wechsler Intelligence Scale for Children. |

## Aim of the work:

*The study is designed to verify the study hypothesis by:*

1. Investigating the presence of cases of pediatric bipolar disorder that are misdiagnosed as ADHD.

2. Investigating the co-morbidity of ADHD and bipolar disorders in children and adolescents.

3. Investigating the presence of a positive family history of mood disorders spectrum among parents of ADHD children and its correlation to appearance of comorbidity or misdiagnosis of bipolar disorder in their offsprings.

# Introduction

Attention deficit hyperactivity disorder (ADHD) is the most common psychiatric disability in childhood, with an estimated incidence of 8–10% for children aged 6–12 years. Approximately 60% of these will persist into adolescence, and approximately 4–5% of adults will have ADHD **(Hershoin, 2006).**

ADHD is often accompanied by one or more co-occurring psychiatric disorders, regardless of the age of the patient. The type of co-morbidity varies and includes learning problems, anxiety disorders, unipolar and bipolar mood disorders, conduct and antisocial personality disorders, and substance use disorders **(Wilens et al., 1994).**

Most recently, Adler and colleagues reported data from the National Comorbidity Study Replication, indicating that 32% of ADHD patients also meet criteria for unipolar depression; 21.2% meet criteria for bipolar disorder; and 9.5% meet criteria for anxiety disorders **(Adler et al., 2006).**