

Adult Attention Deficit Hyperactivity Disorder and Borderline Personality Disorder: Comparative Study

Thesis

Submitted for partial fulfillment of M.D degree in Psychiatry

By

Marwa Esameldin Ahmed Elrefaie Khamis

Faculty of Medicine, Ain Shams University

Supervised by

Professor Zeinab Abdel Hamid Bishry

Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

Professor Ghada Abd El-Razek Hassan

Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

Professor Abeer Mahmoud Eissa

Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

Professor Doaa Hamed Hewedi

Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

**Faculty of Medicine
Ain Shams University**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَمَا أُوتِيْتُمْ مِّنَ الْعِلْمِ إِلَّا قَلِيلًا

صدق الله العظيم

سورة الاسراء الآية (٨٥)

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List of Abbreviations

ACC	anterior cingulated cortex
ADHD	Attention Deficit Hyperactive Disorder
ASCC	anxiety sensitivity cognitive concerns
ASRS-v1.1	Adult ADHD Self-Report Scale-version 1.1
ASUIP	Ain Shams University Institute of Psychiatry
BD	Bipolar Disorder
BIS-11	Barratt Impulsiveness Scale-11
BPD	Borderline personality disorder
CAARS	Conners Adult ADHD Rating Scale
CAARS-S:L	long version of the self-report form of Conners Adult ADHD Rating Scale
CD	conduct disorder
DBT	Dialectical Behavioral Therapy
DSM 5	The 5 th edition of the Diagnostic and Statistical Manual of Mental
EEG	Electroencephalogram
EF	Executive Function
FFM	Five Factor Model
Fig.	Figure
GAD	Generalized anxiety disorder
MD	Major Depression
MDD	major depressive disorder

List of Abbreviations (Cont.)

MRI	Magnetic Resonance Imaging
N	Number
OCD	Obsessive compulsive disorder
PD	Personality Disorders
PFC	Prefrontal cortex
PHD	Philosophical degree
PTSD	Post-traumatic stress disorder
SB	suicidal behavior
SCID-I	Structured Clinical Interview for DSM-IV Axis-I disorders
SCID-II	Structured Clinical Interview for DSM-IV Axis-II Personality Disorders
SD	Standard deviation
SIB	Self-injurious behavior
SM	substance misuse
SPSS	Statistical Package for Social Sciences
SUD	Substance Use Disorders
TCI-R	Temperament and Character Inventory-Revised
TEs	traumatic experiences

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Adult Attention Deficit Hyperactivity Disorder and Borderline Personality Disorder: Comparative Study

Abstract

Introduction: Attention deficit hyperactivity disorder (ADHD) has been known primarily as a disorder of childhood. Despite that, follow-up studies of these children have found to persist into adolescence in as many as 50% to 80% of the cases and into adulthood in as many as 30% to 50% of these cases. However, researchers suggest that the principal childhood symptoms change with development: hyperactivity often decreases by adolescence, attentional problems seem to be more constant, and impulsivity often change into more obvious difficulties in executive functions.

Aim of the work: To identify symptoms profile, severity and co-morbidities in both groups; To compare both groups regarding ADHD symptoms, BPD symptoms and co-morbidities.

Subjects and Methods: Type of the study: This is a cross section comparative study. **Site of the study:** The institute of psychiatry Ain Shams University. The institute serves urban and rural areas from different governorates in Egypt, providing health services to different social classes. The Institute has three outpatients' clinics working four times per week and three specialized clinics.

Results : The study sample consisted of 70 patients; 35 patients in each group (ADHD group and BPD group); having a mean age of 28.6 years old (\pm 3.4) ranging from 23 - 38 years old. The sample comprised of 25 males (35.7%) and 45 females (64.2%). In addition, 50 patients were single (71.4%), and 20 were married (28.5%). As regards the educational level, 16 patients finished secondary / technical education (22.8), 47 had a bachelor degree (67.1%) and 7 had a post graduate degree (masters or PHD) (10.0%).

Summary : The current study was a small trial to solve previous controversies about relation between adult ADHD and BPD. In spite of high rate of co-morbidity between them but still we can differentiate 2 separate disorders had different co-morbidities and different personality dimensions. Both may have common core symptoms as impulsivity and emotional dysregulation which explain high rate of association, both are a neurodevelopmental disorder with common etiological factors. Early intervention and treatment of the overlapping symptoms between both disorders as impulsivity and emotional dysregulation may be protective factor against late adulthood diagnosis of BPD.

Keywords: Attention Deficit Hyperactive Disorder ; Borderline personality disorder.

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Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

Assistant Professor Doaa Hamed Hewedi

Assistant Professor of Neuropsychiatry

Faculty of Medicine, Ain Shams University

Faculty of Medicine

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Introduction

Attention deficit hyperactivity disorders (ADHD) has historically been considered principally a disorder of childhood. However, follow-up studies of children diagnosed as hyperactive or ADHD have found the disorder to persist into adolescence in as many as 50% to 80% of the cases and into adulthood in as many as 30% to 50% of these childhood cases (*Murphy and Barkley, 1996*). However, research suggests that the core childhood symptoms shift with development, sometimes dramatically: hyperactivity often declines by adolescence, attentional problems appear to remain more constant, and impulsivity may transform into more overt difficulties in executive functions (*Wasserstein, 2005*).

Furthermore, comparing a group of adult ADHD with control group of normal volunteers, results indicated that, a relatively high incidence of lifetime diagnoses of anxiety disorders (43% to 52%), oppositional, conduct, and antisocial personality disorders (30%, 20%, and 10%, respectively), and alcohol (27%) and drug (18%) dependencies in adults with ADHD. Those researchers also found a higher incidence of separation and divorce among adults with ADHD (28%) compared to controls (15%), and lower socioeconomic status, poorer past and current global functioning estimates, and a higher occurrence of prior academic problems compared to the control group (*Biederman et al., 1994*).

So currently, ADHD is perhaps one of the most controversial diagnoses, in part because its symptoms can so clearly be related to concepts of personality and temperament. Specifically, inattention, impulsivity and hyperactivity present as chronic and trait-like, rather than showing the symptomatic increases and declines commonly seen in other psychiatric disorders (*Skirrow et al., 2009*).

ADHD and Border line personality disorder (BPD) share dysregulation in emotional and impulse control, with a possible mediating role of a dysfunction of neuronal inhibitory systems. Interestingly, several reports concerning the greater than chance of co-occurrence of these two disorders have been published. Since ADHD, as a neuro-developmental disorder, appears earlier than BPD, it has been suggested that ADHD may contribute to the development of BPD. Longitudinal prospective studies indicate that adolescents and young adults with a childhood history of ADHD are more likely than those without that history to have a personality disorder, with a higher risk for borderline and antisocial personality disorders than for others (*Speranza et al., 2011*).

Similarly **Freidel (2012)** reported that, attention deficit hyperactivity disorder (ADHD) occurs in at least 25% of people with borderline disorder; 5 times more often than it does in the general population.

At the same time, attention-deficit/hyperactivity disorder (ADHD) in adults and borderline personality Disorder (BPD) share some similar clinical features (e. g. impulsivity, emotional dysregulation, cognitive impairment). ADHD in childhood has been reported to be highly associated with the diagnosis of BPD in adulthood and adult ADHD often co-occurs with BPD. Treatment studies revealed an efficacy of dialectical behavioral therapy (DBT) and DBT-based psychotherapy, respectively, in BPD and adult ADHD as well as neuroimaging and psychopharmacological studies showed some evidence for a potential common neurobiological dysfunction suggesting the hypothesis that ADHD and BPD may not be two distinct disorders, but represent at least in a subgroup of patients two dimensions of one disorder (*Philipsen, 2006*).

As characteristics of DSM-IV attention-deficit/hyperactivity disorder (ADHD) in adults can also be found as part of other psychiatric disorders so Dowson et al 2006 investigated the specificity of adult ADHD features in relation to patients with borderline personality disorder (BPD), a syndrome which shares some of its intrinsic features with ADHD and often co-occurs with ADHD. A group of 20 adult patients selected on the basis of a diagnosis of ADHD and 20 patients selected on the basis of a diagnosis of BPD were assessed by the self-report Attention Deficit Scales for Adults (ADSA). The two groups were matched for age, verbal IQ and gender. Of the nine ADSA scales, seven showed significant inter-group differences, in particular involving attention, organisation and persistence (*Dowson et al 2004*).

Similarly **Lamp et al. (2007)** compare group of patients with adult ADHD with and without BPD to group of normal volunteer regarding various motor and cognitive inhibitory functions (inhibition of prepotent, ongoing and interfering responses) . In addition, questionnaire data on various aspects of impulsiveness and anger regulation were assessed in all groups. Finally they concluded that, ADHD and BPD share some symptoms of behavioural dysregulation without common cognitive deficits, at least in the attentional realm.

Rationale of the work:

As adult ADHD is a controversial term, with a lot of similarities and overlap of symptoms with BPD, and common co-morbidities and prognosis whether they are different presentation of the same disorder or two separate disorders with common co-morbidities? It is still unanswered question. There is little if any researches concerned with this

aspects in Middle East area including Egypt that is why this research will be done.

Hypothesis:

Adult ADHD and BPD have common symptoms and co-morbidities, are they one disorder with different clinical presentation?

Aim of the work:

- To identify symptoms profile, severity and co-morbidities in both groups
- To compare both groups regarding ADHD symptoms, BPD symptoms and co-morbidities.

Subjects and methods:

Patients Group I:

Patients diagnosed as adult ADHD according to DSM V criteria will be recruited from outpatient clinics of institute of psychiatry Ain Shams University. The Institute serves urban and rural areas from different governorates in Egypt, providing health services to different social class. The Institute has three outpatients' clinics working four times per week and three specialized clinics. All patients that fulfill our criteria within one year duration at **least 35** patients will be enrolled in this study.

Inclusion criteria:

- Patients diagnosed as adult ADHD according to DSM V criteria.
- Age between 18 and 50 years old.
- Both sexes will be involved.