

Attention deficit hyperactivity disorder among a sample of students from Tanta University

Mohamed Abd El-Hay and Hosam El Sawy

Department of Neuropsychiatry, Faculty of Medicine,
Tanta University, Tanta, Egypt

Correspondence to Mohammed Abdel Hay, Assistant
Professor, Department of Neuropsychiatry, Faculty of
Medicine, Tanta University, Tanta, Egypt
Tel: + 20102226485; fax: + 20226824738;
e-mail: mabdelhay@yahoo.com

Received 1 January 2011
Accepted 15 February 2011

Middle East Current Psychiatry
2011, 18:138–143

Introduction

Despite growing interest in adult attention deficit hyperactivity disorder (ADHD), little is known about its prevalence, characteristics, and comorbidity, especially in Arabic countries.

Objectives

To assess the prevalence of ADHD among a sample of Egyptian college students, and to study prevalent subtypes of ADHD, comorbid psychiatric disorders, and its impact on functioning.

Patients and methods

Two thousand college students aged above 18 years were surveyed using the screener form of Adult ADHD Self-Report Scale, Version 1.1. Students who had positive screening results were assessed individually using the 18-question form of this scale, the Barkley Childhood ADHD Symptom Scale, and the ADHD Current Symptom Scale. Those who proved to have ADHD and a similar number of students without ADHD were assessed using the Mini International Neuropsychiatric Interview. Both groups were compared together with regard to family history of psychiatric disorders, comorbid psychiatric conditions, and Global Assessment of Functioning.

Results

The prevalence of ADHD among college students in this study was 2.66%. Twenty-seven (69.23%) students had predominantly inattentive subtype of ADHD, whereas 12 (30.77%) students had predominantly combined type. The ratio of men-to-women was 1.4 : 1. Lifetime psychiatric comorbidity was found in 26 of 39 (66.66%) students with ADHD, in comparison with 10 of the control group (25.64%). Among these disorders, major depression, generalized anxiety, cigarette smoking, and substance abuse were significantly more in students with ADHD than in those without ADHD. Students with ADHD had significant impairment in the level of functioning as assessed by the Global Assessment of Functioning Scale. Family history of ADHD and major depression were significantly more common in students with ADHD than in control group.

Conclusion

ADHD is not uncommon among college students. It is commonly comorbid with other psychiatric disorders and impairs functioning of affected persons. Family history of psychiatric disorders is more common in families with ADHD than controls.

Keywords:

attention deficit hyperactivity disorder, adults, attention deficit hyperactivity disorder, college students, comorbidity, epidemiology, family history, functioning

Middle East Curr Psychiatry 18:138–143
© 2011 Okasha Institute of Psychiatry, Faculty of Medicine, Ain Shams University
2090-5408

Introduction

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder characterized by motor hyperactivity, impulsivity, and inattention [1]. Until recently, ADHD was a diagnosis reserved for children and adolescents. New evidence, however, supports the persistence of ADHD beyond adolescence, and it is now recognized as a chronic neurobehavioral disorder in adults [2]. Estimates of ADHD prevalence averaged 3.4% (range = 1.2–7.3%) [3]. ADHD in adults frequently goes undiagnosed and untreated. This is largely associated with adults minimizing the severity of symptoms and

being unaware that they actually have ADHD. Predictably, adult ADHD is associated with increased morbidity. Higher traffic violations; concomitant psychiatric disorders; and negative occupational, economic, and psychosocial functions are common findings in adults with ADHD [4–6]. More than 45% of the patients with ADHD had two or more comorbid personality disorders and nearly 60% had two or more Axis I disorders. One of the challenges is to establish whether symptoms are indeed due to ADHD and not due to another condition. These distinctions have serious implications not only for the accurate diagnosis of these conditions but also for optimal treatment and outcomes [7].

Given the increased interest in adult ADHD and the lack of epidemiological data specific to adult ADHD in Egyptian population, this study examined the prevalence of adult ADHD, prevalent subtypes of ADHD, comorbid psychiatric disorders, and its impact on functioning in a sample of college students in Tanta University, Egypt.

Patients and methods

The individuals in this study were 2000 students of six colleges of Tanta University, Egypt. Tanta University consists of 13 colleges and one institute, which includes 96 469 students. The selected faculties were Faculty of Medicine (400 students), Faculty of Science (200 students), Faculty of Pharmacy (200 students), Faculty of Commerce (400 students), Faculty of Education (200 students), and Faculty of Arts (200 students). The ratio of men-to-women was 1 : 1. The age of students participating in the study was 18 years and above. Sample recruitment was conducted in students attending colleges on Saturday, Monday, and Wednesday during the academic year 2009–2010. After receiving a full oral explanation of all study requirements and procedures, these students were surveyed face-to-face using the six-question Adult Self-Report Scale, Version 1.1 Screener [8]. This screener is a subset of the WHO's 18-question Adult ADHD Self-Report Scale-Version 1.1 (ASRS-V1.1), which contains the adult ADHD symptoms most predictive of having the disorder [9]. The ASRS-V1.1 is similar to the standard symptoms described in Diagnostic and Statistical Manual of Mental Disorders, 4th ed (DSM-IV) [10] with modifications in language to reflect the presentation of symptoms in adulthood. The screener has four inattention items and two hyperactivity items, which highly correlate with the full-scale ASRS. The full scale has nine inattentive and nine hyperactivity items. The items can be scaled from 0 to 4. If four or more marks appear in the darkly shaded boxes of the screener, then the patient has symptoms highly consistent with ADHD in adults.

Among the 2000 college students who were surveyed with the ASRS-V1.1 Screener, 1467 students accepted to participate in the study and completed the scale. Forty-six students had positive screening suggestive of ADHD.

Students who had positive screening results were assessed individually by both investigators of this study at the same time for the presence of core symptoms of ADHD, developmental history family history, social and educational history, and assessment if symptoms caused significant functional impairment. After evaluation, only 39 students were found to have ADHD, including 23 men and 16 women.

Symptom assessment was made using the complete version (18-question) of Adult ASRS-V1.1, the Barkley Childhood ADHD Symptom Scale, and the ADHD Current Symptom Scale [11].

The Childhood Symptom Scale focuses on the retrospective assessment of the 18 DSM-IV criteria. The ADHD Current Symptom Scale asks about adult patients' behavior in the

past 6 months, using a scale of 0–3 (0 = never or rarely, 1 = sometimes, 2 = often, 3 = very often). It contains questions that correspond to the nine symptoms of inattention and to the nine symptoms of hyperactivity/impulsivity in the DSM-IV. The wording of the Current Symptoms Scale was tailored for adult self-report and observer report about an adult, instead of parent or teacher report about children.

When the diagnosis of ADHD was confirmed, the 39 students were scheduled for the second part of the assessment where the purpose was to assess for Axis I disorders, for functioning, and for family history of psychiatric disorders. A similar number of students whose screen was negative, (selected randomly, matching for age and sex) were taken as a control group for comparison.

All patients and the control group were assessed by one of the investigator of this study using the Mini International Neuropsychiatric Interview [12], which was translated into Arabic (Ghanem *et al.*, personal communication). Both groups were compared together with regard to family history of psychiatric disorders, comorbid psychiatric conditions, and global assessment of functioning using Global Assessment of Functioning (GAF) Scale [10]. The primary goal of the GAF Scale is to provide a summary score that reflects the level of a patient's overall functioning. Ratings take into account the patient's psychological, social, and occupational functioning. Impairment in functioning due to physical or environmental factors is rated.

Statistical analysis

The collected data were organized and statistically analyzed using statistical package for the social sciences statistical software, version 15.0 (SPSS Inc., Chicago, Illinois, USA). The mean and standard deviation were used for presentation of quantitative data. The Student's *t*-test was used for comparison between two means. For qualitative data, the number and percentage distribution were calculated and χ^2 -test and Fisher's exact test were used for comparison between studied groups. Statistical significance was defined at the *P* value less than 0.05 level.

Results

This study was carried out on college students of medicine, pharmacy, science, education, arts, and commerce. Thus, the sample is more or less homogenous with regard to age, educational level, and socioeconomic state. All students were single and unemployed. The age of patients who had ADHD ranged from 19.2 to 21.9 years with a mean of 20.49 years. The age of students selected as control ranged from 19.2 to 21.6 years with a mean of 20.48 years (*P* > 0.05).

The response rate among those who were given the scale was 73.35%. Among the 2000 college students who were surveyed with the ASRS-V1.1 Screener, 1467 students accepted to participate in the study and completed the scale.

Among those who participated in the study, 39 students had ADHD; thus, the prevalence of ADHD among college students in this study was 2.66%. Twenty-seven (69.23%) students had a predominantly inattentive subtype of ADHD, whereas 12 (30.77%) students had a predominantly combined type.

Among the 39 ADHD students, 23 were men and 16 were women. The ratio of men-to-women was 1.4:1.

Lifetime psychiatric comorbidity was found in 26 of 39 (66.66%) students with ADHD, in comparison with 10 of the control group (25.64%) with statistically significant differences ($P < 0.001$). Comorbid psychiatric disorders included major depression, generalized anxiety, bipolar disorder, obsessive-compulsive disorder, cigarette smoking, and substance abuse. Among these disorders only major depression, generalized anxiety, cigarette smoking, and substance abuse were significantly more in students with ADHD than in those without ADHD ($P < 0.05$) (Table 1).

Students with ADHD had significant impairment in the level of functioning as assessed by GAF Scale, which ranged from 53 to 60 with a mean of 56.74. Scores of GAF Scale in the control group ranged from 76 to 94 with a mean of 86 ($P < 0.001$) (Table 1).

Family history of psychiatric disorders was significantly more common in students with ADHD than in the control group ($P < 0.001$). These disorders included ADHD, major depression, bipolar disorder, substance abuse, and anxiety disorders. Only ADHD and major depression were significantly more common in students with ADHD than in the control group ($P < 0.05$). Although substance abuse, bipolar disorder, and anxiety disorders were more in students with ADHD than in the control group, it did not reach statistical significance ($P > 0.05$) (Table 1).

Discussion

To our knowledge, this is the first study of adult ADHD in college students in Egypt. The prevalence rate of ADHD in this study was 2.64%. Kessler *et al.* [13] found

that 4.4% of adults (age = 18–44 years) had ADHD. In a sample of prison inmates (age = 19.2 ± 2 years), the overall prevalence of ADHD was 45% [14]. Population-based studies estimated prevalence rates of ADHD at 1–7.3% using DSH-IV criteria [15]. Differences in prevalence rate of ADHD among studies may stem from the nature of the studied sample, being a representative sample of adult population or being a convenience sample such as college students in this study or prison inmates in other studies [14].

In contrast to marked sex difference frequently reported in children and adolescents with ADHD in both clinical [16,17] and community studies [18,19], this difference is less clear in this study of college students (men-to-women ratio = 1.4:1). Simon *et al.* [15] in their meta-analysis study arrived at the same conclusion with regard to sex difference. This more balanced sex difference may be attributed to the fact that although parents or teachers usually initiate childhood referrals, in adulthood self-referrals are common. As women with ADHD have more internalizing problems than men, this led to high self-referral in adulthood [15]. Another explanation is that more boys than girls outgrow their ADHD, leading to a decrease in the marked sex difference observed in children.

The two subtypes of ADHD detected in this study were inattentive and combined ones. Kessler *et al.* [20] found greater persistence of inattentive subtype symptoms than of hyperactive/impulsive childhood symptoms of ADHD in adulthood. This may refer to developmental difference of the disorder, whereas the hyperactivity/impulsive subtype diminishes with increasing age. Another explanation is that the diagnostic criteria of the hyperactivity/impulsive subtype became unsuitable for adults and hence cannot detect this subtype.

This study confirmed the findings of other studies of greater risk for comorbid current and past Axis I disorders in adults with ADHD. Cumyn *et al.* [6] reported that adults with ADHD, compared with those without ADHD, had higher rates of Axis I disorders (46.9 vs. 27.31%). However, the pattern of psychiatric comorbidity in adult ADHD is not consistent and differed across studies.

The higher rate of major depressive disorder seen in this study is consistent with some clinical findings [21] but not other findings [22]. Retrospective clinical studies of adults with ADHD showed a prevalence rate between 35 and 50% for depressive episodes [13,21]. Some researchers hypothesized that depression in patients with ADHD represents an adjustment disorder (i.e. a demoralizing response to chronic social and academic failure) [23].

Retrospective clinical studies of adults with ADHD showed a prevalence rate between 10 and 45% for anxiety disorders [13,21,24]. Generalized anxiety was significantly more in students with ADHD than in those without ADHD in this study. Generalized anxiety, phobia, and obsessive-compulsive disorder were inconsistently reported to be more common among ADHD patients [6,25]. In contrast, the prevalence of adult ADHD was

Table 1 Comparison between students with and without ADHD

	ADHD (N=39)	Control (N=39)	Significance
Comorbidity	26 (66.66%)	10 (25.64%)	0.000 ^a
Depression	8 (20.51%)	1 (2.56%)	0.029 ^a
Generalized anxiety	8 (20.51%)	1 (2.56%)	0.029 ^a
OCD	2 (5.12%)	0	0.494
Cigarette smoking	19 (48.71%)	9 (23.07%)	0.033 ^a
Substance abuse	12 (30.76%)	4 (10.25%)	0.047 ^a
Bipolar disorder	2 (5.12%)	0	0.494
GAF Scale (mean)	56.74	86	0.000 ^a
Family history	23 (58.97%)	11 (28.20%)	0.011 ^a
ADHD	11 (28.20%)	2 (5.12%)	0.013 ^a
Depression	9 (23.07%)	2 (5.12%)	0.047 ^a
Bipolar disorder	2 (5.12%)	0	0.494
Substance abuse	7 (17.94%)	4 (10.25%)	0.517
Anxiety disorders	7 (17.94%)	4 (10.25%)	0.517

ADHD, attention deficit hyperactivity disorder; GAF, Global Assessment of Functioning; OCD, obsessive compulsive disorder.

^aSignificant.

higher in anxiety disorder clinical samples than in the general population [26]. Biederman *et al.* [23] suggested that ADHD and anxiety disorders segregate independently in families, and that the association between anxiety disorders and ADHD may reflect reduced stress tolerance, which results in feelings of fear and emotional dysregulation.

Students with ADHD in this study had more lifetime bipolar disorder compared with the control group, but it did not reach statistical significance. Some studies of bipolar disorder revealed that lifetime ADHD is a frequent comorbid condition in adults with bipolar disorder, and it is associated with a worse course of bipolar disorder and a greater burden of other psychiatric comorbid conditions [27]. The rate of ADHD comorbidity decreases steadily as the studied population grows older [28]. The relationship between ADHD and bipolar disorder needs more research to ascertain the diagnostic boundaries and to confirm this relationship.

This study showed that nicotine dependence and drug abuse were significantly higher in students with ADHD than in those without ADHD. A robust and bidirectional comorbidity between ADHD and psychoactive substance abuse has been frequently reported in the literature [29]. The high prevalence of drug abuse in adults with ADHD was frequently reported by other studies [6,30]. Biederman *et al.* [29] explained the association between ADHD and drug dependence with the hypothesis of variable expressivity of a common risk between these disorders. Barkley *et al.* concluded that severity of ADHD creates a greater predisposition toward engaging in antisocial activities that are related to drug possession and sale, perhaps owing to the increased impulsiveness ADHD conveys. Otherwise, it may be that drug use has a disproportionate impact on those with ADHD, predisposing them toward greater antisocial activities than might be the case in the absence of ADHD [31].

The ADHD comorbidity findings raise many questions about the effect of treatment in childhood on the development of comorbidity, the effect of treatment of ADHD in adulthood on severity, and the persistence of comorbidity, in addition to diagnostic difficulties imposed by comorbidity.

This study found that students with ADHD had significantly lower level of functioning compared with those without ADHD. Other studies also found that adults with ADHD were significantly impaired in a variety of psychosocial functions (education, occupational training) [32,33]. This finding warrants increasing the awareness about the disorder to seek professional help.

Family history of psychiatric disorders, specifically ADHD, major depression, and bipolar disorder, were significantly more common in students with ADHD than in the control group. Persistent forms of ADHD are thought to have a higher familial loading than ADHD that does not persist, with increased rates of ADHD among the parents and siblings of those with persistent ADHD and with high rates of ADHD among the offsprings of

parents with ADHD [34]. Approximately 20% of parents of children with ADHD will have ADHD themselves [35]. Twin and adoption studies indicate that the familiarity of ADHD symptoms results from genetic factors rather than shared environmental risks, providing a further rationale for considering ADHD as a lifetime condition [36].

Family studies revealed that, relatives of children with ADHD had significantly higher rates of both ADHD and depression than did relatives of control individuals [37]. Family members of children who had ADHD and major depressive disorder had higher rates of both disorders. A common genetic factor may occur in both. ADHD and major depressive disorder may be different expressions of the same genetic factors behind the appearance of ADHD [38,39]. It is not known why some patients have one disorder, some the other, and still others have both.

In this study, relatives of students with ADHD did not have significant difference in history of bipolar disorder than did relatives of control individuals. A recent study showed that offspring of parents with bipolar disorder showed greater lifetime prevalence of ADHD [40]. The type of the sample studied may play a role in this difference.

Conclusion and recommendations

ADHD is not so rare among college students, and affects their level of functioning. ADHD is highly comorbid with other psychiatric disorders, a matter that may limit diagnosis. Attention problems should urge the clinician to screen for ADHD symptoms.

Limitations

The limitations of this study are as follows: (i) the selected sample of this study is not representative of all college students, as it is not randomly selected due to administrative difficulties and (ii) the screening tools, although commonly used in many cultures, were not standardized to the Egyptian culture.

References

- 1 Biederman J, Faraone SV. Attention-deficit hyperactivity disorder. *Lancet* 2005; 366:237–248.
- 2 Goodman DW. The consequences of attention-deficit/hyperactivity disorder in adults. *J Psychiatr Pract* 2007; 13:318–327.
- 3 Fayyad J, De Graaf R, Kessler R, Alonso J, Angermeyer M, Demyttenaere K, *et al.* Cross-national prevalence and correlates of adult attention-deficit hyperactivity disorder. *Br J Psychiatry* 2007; 190:402–409.
- 4 Kessler RC, Adler L, Ames M, Barkley RA, Birnbaum H, Greenberg P, *et al.* The prevalence and effects of adult attention deficit/hyperactivity disorder on work performance in a nationally representative sample of workers. *J Occup Environ Med* 2005; 47:565–572.
- 5 Fried R, Petty CR, Surman CB, Reimer B, Aleardi M, Martin JM, *et al.* Characterizing impaired driving in adults with attention-deficit/hyperactivity disorder: a controlled study. *J Clin Psychiatry* 2006; 67:567–574.
- 6 Cumyn L, French L, Hechtman L. Comorbidity in adults with attention-deficit hyperactivity disorder. *Can J Psychiatry* 2009; 54:673–683.
- 7 Jacob CP, Romanos J, Dempfle A, Heine M, Windemuth Kieselbach C, Kruse A, *et al.* Co-morbidity of adult attention-deficit/hyperactivity disorder with focus on personality traits and related disorders in a tertiary referral center. *Eur Arch Psychiatry Clin Neurosci* 2007; 257:309–317.
- 8 Adler L, Kessler R, Spencer T. *Adult self-report scale. ASRS-V1. 1 Screener*. New York: World Health Organization (WHO); 2003.

- 9 Kessler RC, Adler L, Ames M, Demler O, Faraone S, Hiripi E, *et al.* The world health organization adult ADHD self-report scale (ASRS): a short screening scale for use in the general population. *Psychol Med* 2005; 35:245–256.
- 10 American Psychiatric Association (APA). *Diagnostic and Statistical Manual of Mental Disorders (DSM)*. 4th ed. Washington, DC: American Psychiatric Association (APA); 2000.
- 11 Barkley RA, Murphy KR. *Attention-deficit hyperactivity disorder: a clinical workbook*. 2nd ed. New York: Guilford Press; 1998.
- 12 Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, *et al.* The mini-international neuropsychiatric interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry* 1998; 59 (Suppl 20): 22–33. quiz:34–57.
- 13 Kessler RC, Adler L, Barkley R, Biederman J, Conners CK, Demler O, *et al.* The prevalence and correlates of adult ADHD in the United States: results from the national comorbidity survey replication. *Am J Psychiatry* 2006; 163:716–723.
- 14 Rösler M, Retz W, Retz Junginger P, Hengesch G, Schneider M, Supprian T, *et al.* Prevalence of attention deficit/hyperactivity disorder (ADHD) and comorbid disorders in young male prison inmates. *Eur Arch Psychiatry Clin Neurosci* 2004; 254:365–371.
- 15 Simon V, Czobor P, Bálint S, Mészáros Á, Bitter I. Prevalence and correlates of adult attention-deficit hyperactivity disorder: meta-analysis. *Br J Psychiatry* 2009; 194:204–211.
- 16 Arnold LE. Sex differences in ADHD: conference summary. *J Abnorm Child Psychol* 1996; 24:555–569.
- 17 Biederman J, Mick E, Faraone SV, Braaten E, Doyle A, Spencer T, *et al.* Influence of gender on attention deficit hyperactivity disorder in children referred to a psychiatric clinic. *Am J Psychiatry* 2002; 159:36–42.
- 18 Gaub M, Carlson CL. Gender differences in ADHD: a meta-analysis and critical review. *J Am Acad Child Adolesc Psychiatry* 1997; 36: 1036–1045.
- 19 Ramtekkar UP, Reiersen AM, Todorov AA, Todd RD. Sex and age differences in attention-deficit/hyperactivity disorder symptoms and diagnoses: implications for DSM-V and ICD-11. *J Am Acad Child Adolesc Psychiatry* 2010; 49:217–228.
- 20 Kessler RC, Green JG, Adler LA, Barkley RA, Chatterji S, Faraone SV, *et al.* Structure and diagnosis of adult attention-deficit/hyperactivity disorder: analysis of expanded symptom criteria from the adult ADHD clinical diagnostic scale. *Arch Gen Psychiatry* 2010; 67:1168–1178.
- 21 Biederman J, Faraone SV, Spencer T, Wilens T, Norman D, Lapey KA, *et al.* Patterns of psychiatric comorbidity, cognition and psychosocial functioning in adults with attention deficit hyperactivity disorder. *Am J Psychiatry* 1993; 150:1792–1798.
- 22 Murphy K, Barkley RA. Attention deficit hyperactivity disorder adults: comorbidities and adaptive impairments. *Compr Psychiatry* 1996; 37: 393–401.
- 23 Sobanski E, Brüggemann D, Alm B, Kern S, Deschner M, Schubert T, *et al.* Psychiatric comorbidity and functional impairment in a clinically referred sample of adults with attention-deficit/hyperactivity disorder (ADHD). *Eur Arch Psychiatry Clin Neurosci* 2007; 257:371–377.
- 24 Sobanski E. Psychiatric comorbidity in adults with attention-deficit/hyperactivity disorder (ADHD). *Eur Arch Psychiatry Clin Neurosci* 2006; 256 (Suppl 1):I/26–I/31.
- 25 Biederman J, Faraone SV, Keenan K, Steingard R, Tsuang MT. Familial association between attention deficit disorder and anxiety disorders. *Am J Psychiatry* 1991; 148:251–256.
- 26 Van Ameringen M, Mancini C, Simpson W, Patterson B. Adult attention deficit hyperactivity disorder in an anxiety disorders population. *CNS Neurosci Ther* 2010. [Epub ahead of print].
- 27 Tamam L, Karakus G, Ozpoyraz N. Comorbidity of adult attention-deficit hyperactivity disorder and bipolar disorder: prevalence and clinical correlates. *Eur Arch Psychiatry Clin Neurosci* 2008; 258:385–393.
- 28 Biederman J, Mick E, Faraone SV. Age-dependent decline of symptoms of attention deficit hyperactivity disorder: impact of remission definition and symptom type. *Am J Psychiatry* 2000; 157:816–818.
- 29 Biederman J, Petty CR, Wilens TE, Fraire MG, Purcell CA, Mick E, *et al.* Familial risk analyses of attention deficit hyperactivity disorder and substance use disorders. *Am J Psychiatry* 2008; 165:107–115.
- 30 Biederman J, Wilens T, Mick E, Milberger S, Spencer TJ, Faraone SV. Psychoactive substance use disorders in adults with attention deficit hyperactivity disorder (ADHD): effects of ADHD and psychiatric comorbidity. *Am J Psychiatry* 1995; 152:1652–1658.
- 31 Barkley RA, Fischer M, Smallish L, Fletcher K. Young adult follow-up of hyperactive children: antisocial activities and drug use. *J Child Psychol Psychiatry* 2004; 45:195–211.
- 32 Barkley RA, Fischer M, Smallish L, Fletcher K. Young adult outcome of hyperactive children: adaptive functioning in major life activities. *J Am Acad Child Adolesc Psychiatry* 2006; 45:192–202.
- 33 Biederman J, Faraone SV, Spencer TJ, Mick E, Monuteaux MC, Aleardi M. Functional impairments in adults with self-reports of diagnosed ADHD: a controlled study of 4101 adults in the community. *J Clin Psychiatry* 2006; 67:524–540.
- 34 Faraone SV, Biederman J, Monuteaux MC. Toward guidelines for pedigree selection in genetic studies of attention deficit hyperactivity disorder. *Genet Epidemiol* 2000; 18:1–16.
- 35 Faraone SV, Biederman J, Feighner JA, Monuteaux MC. Assessing symptoms of attention deficit hyperactivity disorder in children and adults: which is more valid? *J Consult Clin Psychol* 2000; 68:830–842.
- 36 Faraone SV, Doyle AE, Knoerzer JA. Heritability of attention-deficit/hyperactivity disorder. *Econom Neurosci* 2001; 3:54–57.
- 37 Hechtman L. Families of children with attention deficit hyperactivity disorder: a review. *Can J Psychiatry* 1996; 41:350–360.
- 38 Biederman J, Faraone SV, Keenan K, Tsuang MT. Evidence of familial association between attention deficit disorder and major affective disorders. *Arch Gen Psychiatry* 1991; 48:633–642.
- 39 Biederman J, Faraone SV, Keenan K, Benjamin J, Krifcher B, Moore C, *et al.* Further evidence for family-genetic risk factors in attention deficit hyperactivity disorder. Patterns of comorbidity in probands and relatives psychiatrically and pediatrically referred samples. *Arch Gen Psychiatry* 1992; 49:728–738.
- 40 Birmaher B, Axelson D, Goldstein B, Monk K, Kalas C, Obreja M, *et al.* Psychiatric disorders in preschool offspring of parents with bipolar disorder: the Pittsburgh bipolar offspring study (BIOS). *Am J Psychiatry* 2010; 167:321–330.

اضطراب قلة الانتباه و فرط الحركة فى عينة من طلبة جامعة طنطا

محمد عبد الحي و حسام الصاوي

قسم الأمراض العصبية والنفسية- كلية طب-جامعة طنطا

مقدمة: على الرغم من الاهتمام المتزايد باضطراب قلة الانتباه و فرط الحركة عند البالغين، فلا يعرف سوى القليل عن مدى انتشاره، خصائصه، والاضطرابات النفسي المصاحبة، ولا سيما في البلدان العربية.

الهدف من البحث: تقييم مدى انتشار اضطراب قلة الانتباه و فرط الحركة لدى عينة من طلاب الجامعات المصرية، ومعرفة الأنواع الفرعية السائدة للاضطراب، الاضطرابات النفسية المصاحبة، وتأثير الاضطراب على وظيفة الفرد.

طريقة البحث: اجري هذا البحث على 2000 من طلاب جامعة طنطا اكبر من 18 عاما عن طريق استبيان تم توزيعه عليهم، ثم تم تقييم الأفراد الذين كانت نتائجهم موجبة في الاستبيان بصورة فردية عن طريق استبيانات لأعراض اضطراب قلة الانتباه و فرط الحركة الحالية و في الطفولة. بعد ذلك تم تقييم الأطفال الذين يعانون من اضطراب قلة الانتباه و فرط الحركة بالإضافة إلى عينة مماثلة من الطلاب الذين لا يعانون من هذا الاضطراب و عمل باستخدام مقابلة ميني الدولية للأمراض العصبية والنفسية. وتمت مقارنة كلا الفريقين معا فيما يتعلق بالأداء الوظيفي، الاضطرابات النفسية المصاحبة و التاريخ العائلي للاضطرابات النفسية.

النتائج: أوضحت الدراسة ان انتشار اضطراب قلة الانتباه و فرط الحركة بين طلاب الجامعات 2,66 ٪. وكانت الأنواع الفرعية السائدة هي نوعى قلة الانتباه (69,23 ٪) و النوع المختلط (30,77 ٪). وكانت نسبة الذكور إلى الإناث 1,4:1. وجدت الدراسة أمراض نفسية مصاحبة في 26 من 39 (66,66 ٪) من الطلاب الذين يعانون من اضطراب قلة الانتباه و فرط الحركة، بالمقارنة مع عشرة من المجموعة الضابطة (25,64 ٪). ومن بين هذه الاضطرابات كان انتشار الاكتئاب النفسى الجسيم، القلق العام، تدخين السجائر وتعاطي المخدرات أكثر شيوعا عن الطلاب الذين لا يعانون من اضطراب قلة الانتباه و فرط الحركة. أوضح التاريخ العائلي للاضطرابات النفسية أن اضطراب قلة الانتباه و فرط الحركة و الاكتئاب النفسى الجسيم أكثر شيوعا لدى عائلات الطلاب الذين يعانون من اضطراب قلة الانتباه و فرط الحركة عن عائلات المجموعة الضابطة.

الخلاصة: اضطراب قلة الانتباه و فرط الحركة ليس نادرا بين طلاب الجامعات، كما انه يقلل من ادائهم الوظيفي. وتكثر الاضطرابات النفسية المصاحبة بين المصابين بهذا الاضطراب. كما ان التاريخ العائلي للاضطرابات النفسية أكثر شيوعا في أسر هؤلاء الأفراد عن الأفراد الطبيعيين.