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•Original article•

Twelve-year retrospective analysis of outpatients with Attention-Deficit/Hyperactivity Disorder in Shanghai

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Background: Attention-Deficit/Hyperactivity Disorder (ADHD) is the most common diagnosis among children treated in outpatient psychiatric clinics in China, accounting for up to 50% of all patients.

Objective: Understand changes over time in the characteristics and treatment of children with ADHD seen at specialty psychiatric clinics in China.

Methods: For each year from 2000 through 2011, 250 charts of patients who made their initial visit to the Child and Adolescent Psychological Counseling Clinic of the Shanghai Mental Health Center were randomly selected. Among the 3000 selected patients, 998 (33%) had a diagnosis of ADHD.

Results: About 80% of the ADHD patients were male and the majority of them fell ill prior to the age of seven. The mean (sd) age at the time of first attendance at the clinic was 10.0 (2.6) years and the mean duration of illness at the time of the initial visit was 2.9 (1.2) years; both of these values decreased significantly over time. About 20% of them were non-residents of Shanghai and about 11% had comorbid psychiatric diagnoses (primarily depression and tic disorder); both of these proportions increased significantly over time. Among the 576 (58%) who visited the clinic more than once, 77% were treated with central nervous system stimulants, but the proportion administered behavioral treatments (either solely on in combination with medications) increased significantly over time.

Conclusion: ADHD remains the most common diagnosis of children seen in specialty psychiatric clinics in China but the proportion of clinic attendees with ADHD is gradually declining as non-specialty treatment services expand and other diagnoses become more prominent. There are encouraging trends of earlier identification and treatment of ADHD and of increasing use of non-pharmacological interventions. Nevertheless, most children with ADHD have been ill for at least two years at the time of the initial diagnosis, so continued research efforts are needed to identify the best ways to speed up the recognition and treatment of this disabling condition.

1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) was first recognized as a distinct condition in the late 1960s. Over the last two decades there have been several improvements in the diagnostic criteria for the disorder and in the interventions available to treat the condition.[1-3] In China, in parallel with the recent rapid development of child and adolescent psychiatry, ADHD has been recognized as one of the most common psychiatric disorders among children.[4,5] To describe secular trends in the characteristics of ADHD treatment in China, the current paper summarizes clinical data on children with ADHD treated at the Child and Adolescent Psychological Counseling Clinic of the Shanghai Mental Health Center – one of the leading child psychiatric centers in the country.[6]

2. Methods

2.1 Sample

The identification of cases included in the analysis is shown in Figure 1. Data were abstracted from the case records of patients who sought treatment from January 2000 to December 2011 at the Child and Adolescent Psychological Counseling Clinic of the Shanghai Mental Health Center at the Shanghai Jiao Tong University School of Medicine. Two hundred and fifty patients first treated in the clinic during each of the twelve years from 2000 to 2011 were randomly selected from all patients first treated in each year using computer-generated random numbers. As shown in Table 1, a total of 998 (33.3%) of the 3000 medical records identified were for children diagnosed with ADHD.

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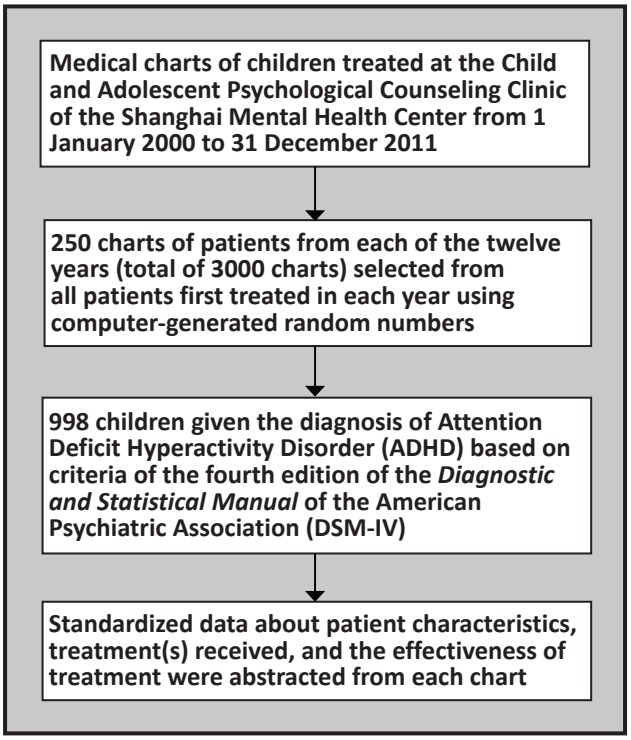
Figure 1. Flowchart of the identification of cases included in the analysis



2.2 Data collection

The information abstracted from the charts included the gender, age, residence (Shanghai v. elsewhere), duration of symptoms at the time of the initial visit, diagnosis (at the time of the final visit), number of clinic visits, type of treatment (medication alone v. non-pharmacological methods v. both pharmacological and non-pharmacological methods), and clinical status at the time of the last recorded visit. The diagnoses reported in the charts were made by an attending level (or higher) psychiatrist using the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders 4th Edition* (DSM-IV).[7] To maintain the anonymity of the collected data, patients' names, addresses and contact information were not included in the extracted information.

2.3 Statistical methods

A database created using EXCEL was analyzed using SPSS statistical software. Proportions of patients with different characteristics in the 12 years considered were assessed using Chi-square tests and trends in changes over these 12 years were assessed using Chi-square for trend analyses. The age of first treatment at the clinic, the duration of illness (reported by the accompanying family member), and the estimated age of onset were not normally distributed, so we used Mann-Whitney rank tests to assess changes in these values from the first six-year period (2000 through 2005) to the second six-year period (2006 through 2011) considered in the analysis.

Table 1. Primary diagnoses of 3000 randomly selected patients at the time of first outpatient treatment at the Child and Adolescent Psychological Counseling Clinic of Shanghai Mental Health Center from 2000 to 2011

Diagnosis	n	%
Attention Deficit/Hyperactivity Disorder	998	33.3
Mood disorder	314	10.5
Mental retardation	222	7.4
Childhood autism	165	5.5
Schizophrenia	158	5.3
Tic disorder	106	3.5
Depression	95	3.2
Obsessive compulsive disorder	54	1.8
Asperger Syndrome	33	1.1
Other mental disorder[a]	175	5.8
General psychological problem	329	11.0
Borderline intelligence	33	1.1
Physical disease[b]	33	1.1
Unspecified diagnosis	285	9.5

[a] 'Other mental disorder' includes conduct disorder, Tourette syndrome and other disorders with a prevalence of less than 1%.

[b] 'Physical disease' includes neurological and endocrine system diseases such as epilepsy and infantile convulsions.

3. Results

3.1 Characteristics of the identified ADHD patients

The characteristics of the ADHD patients over the 12 years considered are shown in Table 2. Over the 12-year-period the proportion of patients with the ADHD diagnosis varied from a low of 26.4% in 2005 to a high of 46.8% in 2006. Thus, there were significant variations in the proportion of patients with the diagnosis over the 12 years (χ^2=44.68, *df*=11, *p*<0.001). However, there was no clear increasing or decreasing trend in the proportion of patients with the ADHD diagnoses over time (χ^2_{trend}=0.02, *p*=0.877). Only 2 of the 998 ADHD patients (0.2%) received inpatient treatment and both had comorbid conditions (one had conduct disorder and the other had an eating disorder); in comparison to this, 4.1% (82/2002) of the non-ADHD patients received inpatient treatment.

Among children diagnosed with ADHD over the 12-year period considered, 836 were males and 162 were females, which results in a male:female ratio of 5.2:1. This gender ratio did not vary significantly over the 12 years assessed (χ^2=14.88, *df*=11, *p*=0.109). These patients included 800 from Shanghai and 198 from other cities or provinces, which results in an overall ratio of local to non-local patients of 4:1. This local:non-local ratio varied significantly over the 12 years from a high of 25.1:1 in 2001 to a low of 1.8:1 in 2008 (χ^2=40.96, *df*=11, *p*<0.001);

Table 2. Characteristics of patients treated at the Child and Adolescent Psychological Counseling Clinic of Shanghai Mental Health Center with Attention Deficit/Hyperactivity Disorder (ADHD) from 2000 to 2011

Year	% patients with ADHD[a]	number of patients with ADHD	Characteristics of patients with ADHD						
			Male gender	Shanghai resident	Age of onset	Age of first clinic visit	Duration of illness at first clinic visit in year(s)	Has other psychiatric diagnosis	Had two or more clinic visits
			n (%)	n (%)	mean (sd)	mean (sd)	mean (sd)	n (%)	n (%)
2000	31.2%	78	65 (83.3)	68 (87.2)	7.0 (2.9)	11.0 (3.0)	4.0 (1.4)	5 (6.8)	23 (29.5)
2001	34.4%	86	66 (76.7)	82 (95.3)	8.0 (2.8)	10.3 (3.1)	2.3 (0.9)	8 (10.3)	41 (47.7)
2002	39.2%	98	76 (77.6)	87 (88.8)	6.8 (2.7)	10.7 (2.9)	3.9 (1.7)	6 (6.5)	78 (79.6)
2003	33.6%	84	70 (83.3)	63 (75.0)	7.1 (2.0)	10.2 (2.2)	3.1 (1.5)	7 (9.1)	32 (38.1)
2004	34.0%	85	72 (84.7)	72 (84.7)	6.1 (2.3)	9.9 (2.5)	3.8 (1.7)	12 (16.4)	62 (72.9)
2005	26.4%	66	58 (87.9)	51 (77.3)	6.9 (2.5)	9.7 (2.7)	2.8 (1.2)	5 (8.2)	59 (89.4)
2006	46.8%	117	105 (89.7)	88 (75.2)	6.6 (1.9)	9.6 (2.2)	3.0 (1.0)	8 (7.3)	88 (75.2)
2007	28.0%	70	57 (81.4)	57 (81.4)	7.0 (2.3)	9.6 (2.4)	2.6 (0.8)	10 (16.7)	50 (71.4)
2008	39.2%	98	92 (93.9)	63 (64.3)	6.9 (2.1)	9.7 (2.2)	2.8 (1.2)	17 (21.0)	34 (34.7)
2009	27.6%	69	56 (81.2)	52 (75.4)	6.8 (2.0)	9.2 (2.2)	2.4 (1.4)	6 (9.5)	44 (63.8)
2010	29.2%	73	61 (83.6)	57 (78.1)	7.7 (2.1)	9.9 (2.5)	2.2 (0.9)	7 (10.6)	34 (46.6)
2011	29.6%	74	58 (78.4)	60 (81.1)	7.5 (2.5)	9.4 (2.7)	1.9 (0.7)	15 (20.2)	31 (41.9)
2000-2005	33.1%	497	407 (81.9)	423 (85.1)	7.0 (2.5)	10.3 (2.8)	3.3 (1.4)	43 (8.7)	295 (59.4)
2006-2011	33.4%	501	429 (85.6)	377 (75.2)	7.1 (2.2)	9.6 (2.4)	2.5 (1.0)	63 (12.6)	281 (56.1)
Total (%)	**33.3%**	**998**	**836 (83.8)**	**800 (80.2)**	**7.1 (2.3)**	**10.0 (2.6)**	**2.9 (1.2)**	**106 (10.6)**	**576 (57.7)**

[a] The proportion of 250 randomly selected patients who first received treatment at the study site in the corresponding year(s) with a primary diagnosis of ADHD

the proportion of local patients from Shanghai decreased significantly over time (χ^2_{trend}=15.26, p<0.001).

Among the 998 patients with ADHD, the mean (sd) age of first treatment at our clinic was 10.0 (2.6) years, the mean duration of illness (as reported by the parents) at the time of first treatment at our clinic was 2.9 (1.2) years and, thus, the estimated mean age of onset was 7.1 (2.3) years. The age at the time of the first attendance at the clinic of patients seen in the second five-year period (2006-2011) (median=9.2 year, interquartile range=7.6-11.5 years) was significantly younger than that of patients seen in the first five-year period (2001-2005) (median=10.2 years, interquartile range=7.9-12.4 years; Mann-Whitney U=4.69, p<0.001). In parallel with this earlier age of attendance at our clinic over time, the duration of illness at the time of coming to the clinic decreased over time: the median (interquartile range) duration of illness at the time of first clinic visit among patients first seen from 2000 through 2005 was 4.0 (1.0-6.0) years while that of patients seen from 2006 through 2011 was 3.0 (1.0-5.0) years (Mann-Whitney U=3.80, p<0.001). The estimated age of onset did not vary significantly over time. Overall, 576 of the 998 ADHD patients (57.7%) had an onset of illness prior to 7 years of age, 397 (39.8%) first fell ill from 7 to 12 years of age, and 25 (2.5%) first fell ill after the age of 12.

Among these 998 patients, 10.6% (106 individuals) had comorbid psychiatric conditions. The proportion of patients with comorbid conditions varied over the 12 years from a low of 6.5% in 2002 to a high of 25.4% in 2011 (χ^2=20.94, df=11, p=0.034); there was a significantly increasing trend in the proportion of patients with comorbid diagnoses (χ^2_{trend}=4.05, p=0.044). The specific comorbid diagnoses in the ADHD patients are shown in Table 3. The most common comorbid diagnoses were tic disorders and mood disorders (primarily depression); these two disorders accounted for 75.5% (80/106) of all comorbid conditions recorded. Increases in the proportion of patients with a comorbid mood disorder over time was the main factor that lead to the increase in the proportion of patients with any comorbid condition over time.

3.2 Care-seeking and treatment of ADHD patients

Among the 998 patients, 42.3% (n=422) only made a single visit to the clinic; 57.7% (n=576) made two or more visits (15.0% made two visits, 8.4% made three visits and 34.3% made more than three visits). The proportion of patients with multiple visits varied from a low of 29.5% in 2000 to a high of 89.4% in 2005. There is statistically significant variation in the proportion of patients with

Table 3. Comorbid diagnoses at the time of first treatment among 998 patients with Attention Deficit/Hyperctivity Disorder treated at the Child and Adolescent Psychological Counseling Clinic of Shanghai Mental Health Center from 2000 to 2011

Comorbidity	All cases N=998 n (%)	2000-2005 N=497 n (%)	2006-2011 N=501 n (%)	χ^2 (p)
Tic disorder	40 (4.0%)	19 (3.8%)	21 (4.2%)	1.28 (0.288)
Mood disorder	40 (4.0%)	10 (2.0%)	30 (6.0%)	6.46 (0.011)
Conduct disorder	13 (1.3%)	7 (1.4%)	6 (1.2%)	1.08 (0.298)
Tourette syndrome	3 (0.3%)	2 (0.4%)	1 (0.2%)	-
Obsessive compulsive disorder	2 (0.2%)	2 (0.4%)	0 (0.0%)	-
Childhood autism	1 (0.1%)	0 (0.0%)	1 (0.2%)	-
Eating disorder	1 (0.1%)	0 (0.0%)	1 (0.2%)	-
Schizophrenia	1 (0.1%)	0 (0.0%)	1 (0.2%)	-
Impulse control disorder	1 (0.1%)	1 (0.2%)	0 (0.0%)	-
Psychosexual disorder	1 (0.1%)	1 (0.2%)	0 (0.0%)	-
Anxiety disorder	1 (0.1%)	0 (0.0%)	1 (0.2%)	-
Phobic disorder	1 (0.1%)	0 (0.0%)	1 (0.2%)	-
Comorbid conduct and tic disorders	1 (0.1%)	1 (0.2%)	0 (0.0%)	-
Total	**106 (10.6%)**	**43 (8.7%)**	**63 (12.6%)**	**4.05 (0.044)**

multiple visits over the 12 years (χ^2=150.40, *df*=11, *p*<0.001), but there was no clear trend in this proportion over time (χ^2_{trend}=2.42, *p*=0.491). The proportion of ADHD patients who made multiple visits to the clinic that had comorbid diagnoses (70/576, 12.2%) was higher than the proportion of ADHD patients who only made a single clinic visit that had comorbid diagnoses (36/422, 8.5%), but this difference was not statistically significant (χ^2=3.37, *p*=0.067).

The proportions of the different types of treatment provided over time are shown in Table 4. Treatments provided to these patients included pharmacological treatment (mainly central nervous system stimulants), non-pharmacological treatment (mainly behavioral therapy), and combined pharmacological and non-pharmacological treatment. Medication treatment was the most common form of treatment in each of the 12 years, accounting for 76.5% of all treatments provided to the 998 patients; but there was a significant decrease in the use of pharmacological agents over time (χ^2_{trend}=8.93, *p*=0.003) and a corresponding increase in the use of non-pharmacological treatments (χ^2_{trend}=6.51, *p*=0.011) and in the use of combined treatments (χ^2_{trend}=5.59, *p*=0.018).

Among the 576 patients who made multiple visits, at the time of the last clinic visit the treatment provided was considered 'effective' in 45.1% (n=260) and the patient's condition was considered 'improved' in a further 43.8% (n=252). Over the 12 years considered, there was a significant increase in the proportion of patients who benefited from treatment (that is, the treatment was considered 'effective' or the patient was considered 'improved' by the treating clinician) (χ^2_{trend}=5.98, *p*=0.014). The proportions of patients who benefitted from pharmacological treatment (385/434; 88.7%), non-pharmacological treatment (37/45; 82.2%), and combined pharmacological and non-pharmacological treatment (89/97, 91.8%) did not differ significantly (χ^2=2.84, *df*=2, *p*=0.241).

4. Discussion

4.1 Main findings

ADHD is, by far, the most common condition seen in child psychiatric outpatient services in urban China,[1,8] accounting for one-third of new cases identified in the current study. However, the proportion of all new cases diagnosed as ADHD identified in this study, which covered the period from 2000 through 2011, is much *lower* than the 50% of all new cases diagnosed as ADHD reported in a similar study of child psychiatric services in Shanghai that covered the period from 1985 through 1999.[6] There are several possible reasons for this declining trend: (a) narrowing of the diagnosis definition after the 1994 release of DSM-IV criteria[7] and its subsequent gradual promulgation across China; (b) increasing treatment options for ADHD at district-level mental health services and children's psychological clinics in general hospitals in Shanghai which decreased the need for referral of these cases to the Shanghai Mental Health Center[3]; and (c) increased care-seeking for other childhood mental disorders, such as childhood autism.[9,10]

The proportion of patients from outside of Shanghai (including those who are self-referred and those who are

Table 4. Treatment of Attention Deficit/Hyperactivity Disorder and effectiveness of treatment in patients with multiple visits during the 12 years

Year	Type of treatment provided to all 998 patients				Effectiveness of treatment among 576 patients with two or more clinic visits[a]		
	Medication n (%)	Non-pharmacological treatment n (%)	Combined treatment n (%)	No treatment n (%)	Effective n (%)	Improved n (%)	No change n (%)
2000	60 (76.9)	1 (1.3)	7 (9.0)	10 (12.8)	15 (65.3)	5 (21.7)	3 (13.0)
2001	72 (83.7)	0 (0.0)	10 (11.6)	4 (4.7)	21 (51.2)	11 (26.8)	9 (22.0)
2002	79 (80.6)	3 (3.1)	14 (14.3)	2 (2.0)	37 (47.5)	26 (33.3)	15 (19.2)
2003	68 (80.9)	10 (11.9)	4 (4.8)	2 (2.4)	8 (25.0)	20 (62.5)	4 (12.5)
2004	67 (78.8)	6 (7.1)	11 (12.9)	1 (1.2)	24 (38.7)	34 (54.8)	4 (6.5)
2005	54 (81.9)	2 (3.0)	8 (12.1)	2 (3.0)	21 (35.6)	31 (52.5)	7 (11.9)
2006	100 (85.4)	1 (0.9)	14 (12.0)	2 (1.7)	36 (40.9)	47 (53.4)	5 (5.7)
2007	61 (87.2)	5 (7.1)	4 (5.7)	0 (0.0)	22 (44.0)	27 (54.0)	1 (2.0)
2008	66 (67.4)	7 (7.1)	19 (19.4)	6 (6.1)	16 (47.0)	14 (41.2)	4 (11.8)
2009	49 (71.0)	4 (5.8)	12 (17.4)	4 (5.8)	22 (50.0)	19 (43.2)	3 (6.8)
2010	42 (57.6)	15 (20.5)	15 (20.5)	1 (1.4)	18 (52.9)	11 (32.4)	5 (14.7)
2011	45 (60.8)	10 (13.5)	16 (21.6)	3 (4.1)	20 (64.5)	7 (22.6)	4 (12.9)
2000-2005	400 (80.5)	22 (4.4)	54 (10.9)	21 (4.2)	126 (42.7)	127 (43.1)	42 (14.2)
2006-2011	363 (72.4)	42 (8.4)	80 (16.0)	16 (3.2)	134 (47.7)	125 (44.5)	22 (7.8)
Total	**763 (76.5)**	**64 (6.4)**	**134 (13.4)**	**37 (3.7)**	**260 (45.1)**	**252 (43.8)**	**64 (11.1)**

[a] Effectiveness is assessed by an attending level clinician at the time of the last clinic visit (only among those with two or more visits). This is based on clinical judgment (no scale was employed): 'effective' means that the patient improved substantially compared to pre-treatment status; 'improved' means that the patient improved compared to pre-treatment status, but still had some prominent symptoms; 'No change' means no improvement in the clinical status compared to pre-treatment condition.

referred by health professionals) accounted for about 20% of all new cases of ADHD. This proportion increased significantly over time from 15% during 2000 through 2005 to 25% during 2006 through 2011. We expect this reflects increasing public demand for specialized mental health services for children. In many parts of the country no such services are available so families bring their ill children to large metropolitan centers like Shanghai to obtain these services.

As reported elsewhere in China and in other countries,[11,12] about 80% of the children with ADHD identified in this report are male and more than half of them fell ill prior to the age of seven. Over the last 12 years there has been a gradual drop in the age of first appearance at our clinic and a corresponding decrease in the duration of illness at the time the patient is first seen by a mental health professional. The gradual drop in the age at diagnosis is probably a reflection of increased awareness of the condition among parents and teachers.[13] Nevertheless, most of the identified patients had ADHD symptoms for two years or more before they came to the clinic. Given the serious, long-term effects of ADHD on social and academic functioning and on emotional development,[14] increasing the early detection and treatment of this common condition needs to become a high-priority public health objective.[13,15]

We found that 11% of children with ADHD had comorbid psychiatric conditions, primarily mood disorders and tic disorders, both of which occurred in 4% of ADHD patients. This comorbidity rate is much lower than the 60% of ADHD patients with comorbid conditions reported in other studies from both China and other countries.[16,17] These previous studies found that conduct disorder is a much more common comorbid diagnosis among patients with ADHD than tic disorders or mood disorders, but only 1% of ADHD patients in the current study were diagnosed with comorbid conduct disorder. Possible reasons for this discrepancy are an over-diagnosis of conduct disorder and other comorbid diagnoses in previous studies, an under-diagnosis in the current study, or both. Certainly, the limited time available for diagnoses and treatment of each patient at our busy clinic may have decreased the diagnosis of comorbid conditions, particularly diagnoses such as conduct disorder that cannot usually be directly observed during the clinic visit. It is also possible that patients diagnosed with conduct disorder have comorbid ADHD that is not being recognized or treated. We expect that more

detailed prospective studies that systematically assess patients for all possible comorbid diagnoses would result in a much higher comorbidity rate.

Many patients, particularly those referred from outside of Shanghai, only came to the clinic for a single visit in order to establish (or confirm) the diagnosis. Among patients who receive treatment at the clinic, the vast majority receive medications, primarily with the central nervous system stimulants that have been proven effective in the treatment of ADHD both in China and in other countries.[9,18,19] In recent years there has been increased use of non-pharmacological interventions (e.g., behavior therapy) that achieve their effects by changing the behavior and familial relationships of children with ADHD.[20] At present these non-pharmacological treatments are usually used in combination with pharmacological treatments, not as stand-alone interventions.[21,22]

4.2 Limitations

We were able to randomly select 250 cases from each year over the 12-year period considered, so we are confident that the results are representative of ADHD patients seen in our clinic. But we are unable to assess how representative these patients are of patients seen in other clinics in China or of children in China with ADHD who are never seen in a psychiatric clinic.

This report suffers from the limitations of all retrospective analyses that are based on medical charts. The ADHD diagnosis depends on a clinician's examination, not on the use of a structured diagnostic instrument so there may be some variability in the diagnosis over time or between clinicians, but the consistent use of DSM-IV criteria over the 12-year period probably decreased the seriousness of this problem. The clinical records did not include clear information about prior diagnosis and treatment, so we cannot be certain about the time of first diagnosis or about the pathways patients took to arrive at our center (particularly for children who came from outside of Shanghai and, thus, may have been referred from other centers). The assessment of the duration of illness at the time of first assessment at our clinic was based on the subjective report of the parents who typically accompanied the child to the clinic; in the absence of a detailed, structured method of obtaining this information, we are doubtful of its reliability and, thus, the accuracy of the estimated age of onset (which is estimated using the parental report of the duration of symptoms) is also suspect. Finally, the assessment of effectiveness of the provided treatment was based on the subjective evaluation of the treating clinician, which may have introduced bias.

4.3 Implications

ADHD is the most common disorder seen in child and adolescent psychiatric outpatient services in China. Despite recent increases in the care-seeking of these individuals, many – particularly those that live in rural areas – have symptoms that seriously affect their functioning for years before they are first given the correct diagnosis and provided with treatment. Prospective research that includes both qualitative and quantitative components is needed to identify the best ways to speed up the recognition and treatment of these children. One early goal should be the development of effective health promotion campaigns for parents, teachers, non-psychiatric health professionals and the general public that are focused on increasing awareness of ADHD and on decreasing the stigma associated with receiving treatment for ADHD.

Conflict of interest

The authors declare no conflict of interest.

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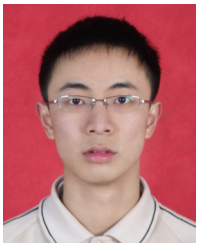

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•论著•

注意缺陷多动障碍门诊就诊的 12 年回顾性分析

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摘要

背景：注意缺陷多动障碍（Attention Deficit/Hyperactivity Disorder, ADHD）是中国精神科门诊儿童患者中最常见的诊断，最高比例约占所有患儿的 50%。

目的：了解中国精神科儿童门诊 ADHD 患儿特征和治疗情况的变迁。

方法：随机抽取 2000 年至 2011 年间在上海市精神卫生中心儿少心理咨询门诊初诊患儿的病历，每年抽取 250 份。在所抽取的 3000 例患儿中，998 例（33%）诊断为 ADHD。

结果：约 80% 的 ADHD 患儿为男性，大多数在 7 岁之前患病。确诊患儿初诊时平均（标准差）年龄为 10.0（2.6）岁，初诊时平均病程为 2.9（1.2）年，近年趋势为初诊年龄变小，初诊时病程变短。约 20% 的患儿为非上海户籍，约 11% 合并其他精神疾病诊断（主要是抑郁症和抽动障碍），近年来上述比例呈上升趋势。576 例（58%）有复诊记录的患儿中，77% 接受中枢兴奋剂，但是，行为治疗（单用或合并药物）的比例近年来明显增加。

结论：ADHD 仍然是中国精神科门诊儿童患者中最常见的诊断，但由于非专科治疗服务的扩大以及其他疾病诊断的增加，门诊 ADHD 患儿的比例在下降。令人欣慰的是 ADHD 呈现早诊断和早治疗的趋势以及非药物干预的应用有所增加。尽管如此，多数 ADHD 患儿确诊前至少已有 2 年病程，因此需要进一步研究来确定更好的方法以便更早地识别和治疗这一障碍。