

Javier Quintero<sup>1</sup>  
Vicent Balanzá-Martínez<sup>2</sup>  
Javier Correas<sup>3</sup>  
Begoña Soler<sup>4</sup>  
Grupo GEDA-A<sup>5</sup>

# Attention Deficit Hyperactivity Disorder (ADHD) in the adult patients: view of the clinician

<sup>1</sup>Servicio de Psiquiatría  
Hospital Universitario Infanta Leonor  
Departamento de Psiquiatría y Psicología Médica  
Universidad Complutense de Madrid, España

<sup>2</sup>Servicio de Psiquiatría y Fundación para la Investigación  
Hospital Universitario Doctor Peset  
Universitat de València  
CIBERSAM, Valencia, España

<sup>3</sup>Servicio de Psiquiatría  
Hospital Universitario del Henares  
Coslada, Madrid, España

<sup>4</sup>E-C-BIO S.L. Madrid (España)

<sup>5</sup>GEDA-A  
Grupo de Estudio para el Déficit de Atención  
en el Adulto

**Introduction:** ADHD is a clinical entity that persists during adolescence and even into adulthood in many cases. Assuming that most adults with ADHD will not have been diagnosed in childhood, the GEDA-A group (Adult ADHD study group) considered that it was important to assess how much knowledge the clinicians had about ADHD in order to provide for the identification of the disorder in the adult.

**Methodology:** A cross-sectional survey to be filled out by specialists involved in the diagnosis and treatment of ADHD was designed. This survey included questions on awareness of the disease in the different stages of life (childhood, adolescence and adulthood).

**Results:** 484 clinicians, with a mean age of 45 years (95% CI 44-46) and 17 years of professional experience (95% CI 16-18) filled out the survey. 384 were psychiatrists (79.5%), 67 neurologists (13.9%) and 19 addictive behavior specialists (3.9%). When their opinions were compared about the diagnosis and treatment of ADHD in childhood, adolescence and adulthood, significant differences of opinion were found regarding the three stages in all the dimensions analyzed ( $p < 0.0001$ ). Assessment in adulthood systematically showed a lower degree of awareness compared to ADHD in childhood and adolescence.

**Conclusions:** In the clinician's opinion, ADHD in adulthood is a clinical entity that is less defined and whose diagnosis is not as clear, compared to ADHD in the other stages in life. The GEDA-A group suggests that it is necessary to have more comprehensive training that makes the diagnosis and treatment of ADHD in adults easier.

*Actas Esp Psiquiatr* 2013;41(3):185-95

Correspondence:  
Dr. Javier Quintero  
Servicio de Psiquiatría. Hospital Universitario Infanta Leonor  
C/ Gran Vía del Este, 80  
28031 Madrid, Spain  
Phone: 34.91.191.89.52  
E-mail: fjquintero@salud.madrid.org

## Trastorno por Déficit de Atención con Hiperactividad (TDAH) en el paciente adulto: visión del clínico

**Introducción.** El TDAH es una entidad clínica que persiste en muchos casos, durante la adolescencia incluso en la edad adulta. Asumiendo que la mayor parte de los adultos con TDAH no habrán sido diagnosticados en la infancia, el grupo de trabajo GEDA-A (Grupo de Estudio para el Déficit de Atención en el Adulto) consideró importante valorar el grado de conocimiento del TDAH por el clínico, para facilitar la identificación del trastorno en el adulto.

**Metodología.** Se diseñó una encuesta transversal, completada por especialistas implicados en el diagnóstico y tratamiento del TDAH. Se incluyeron preguntas sobre el conocimiento de la patología en las distintas etapas de la vida (infancia, adolescencia y edad adulta).

**Resultados.** 484 clínicos, con edad media de 45 años (IC95% 44 a 46) y 17 años de ejercicio profesional (IC95% 16 a 18) completaron la encuesta. 384 eran psiquiatras (79,5%), 67 neurólogos (13,9%) y 19 especialistas en conductas adictivas (3,9%). En la comparación de sus opiniones sobre el diagnóstico y el tratamiento del TDAH en la infancia, adolescencia y edad adulta, se observaron diferencias de opinión significativas respecto a las tres etapas, en todas las dimensiones analizadas ( $p < 0,0001$ ). La valoración en la edad adulta fue sistemáticamente de menor grado de conocimiento en comparación con el TDAH en la infancia y la adolescencia.

**Conclusiones.** En opinión de los clínicos, el TDAH en la edad adulta es una entidad clínica menos definida y con un diagnóstico menos claro, en comparación con las otras etapas de la vida. El Grupo GEDA-A sugiere que es necesaria una formación más completa que facilite el diagnóstico y tratamiento del TDAH en el adulto.

**Palabras clave:** TDAH, Déficit de atención, Hiperactividad, Adultos, opinión, Encuesta  
**Keywords:** ADHD, Attention deficit, Hyperactivity, Adults, Opinion, Survey

## INTRODUCTION

Attention Deficit and Hyperactivity (ADHD) is one of the most frequent psychiatric disorders of the many that affect the child population. Its estimated prevalence is 5 to 7% in school aged children.<sup>1</sup> With well-defined neurobiological bases,<sup>2</sup> it is known that the disorder persists during adolescence and even into the adult age in many cases.<sup>4</sup> The most recent studies estimate a prevalence of approximately 4% of this disorder in the adult population.<sup>4</sup> This estimate would be congruent with the evolutive studies data that suggest that the diagnosis persists in the adult age in 15 to 65% of the cases.<sup>5</sup> A recent review observed that in the adult age, more than 10 years after the diagnosis, 78% of the patients still had ADHD: 35% fulfilled the diagnostic criteria, 22% maintained subsyndromic symptoms and 15% had functional repercussion and 6% were in complete remission but were still receiving treatment.<sup>7</sup> However, ADHD continues to be an underdiagnosed disorder in the adult age.<sup>5,6</sup>

One of the principal problems we have when ADHD is diagnosed in the adult age<sup>5</sup> is that the DSM-IV criteria that is currently used the most in the clinical work and in research were written by groups of specialists in Child Psychiatry. It was validated using empirical studies of children and it is only recently that they have begun to define the conceptual nucleus in the adult. ADHD diagnostic criteria in the DSM-IV have been qualified as "*inappropriate and clearly restrictive for the adult population.*"<sup>8</sup> On the other hand, clinical studies have clearly manifested that ADHD symptoms are more heterogeneous and subtle in adults than in children.<sup>9,10</sup>

What does seem to be clear is that ADHD confers an elevated risk of comorbidity to the person suffering it. This risk goes from behavior problems and learning problems in childhood to anxiety, depressive problems, substance abuse and even personality disorders in the adult age.<sup>11,12</sup> Therefore, early diagnosis and treatment of ADHD may be the best alternative for improvement of the prognosis.

Clinical experience in relation to ADHD in adults in Spain is recent. A great separation between child and adolescent psychiatrists and adult psychiatrists has existed for decades. This hinders care continuity in disorders with clear affections over the life span difficult, as is the case of ADHD. This not only has an implication for the patients but also for the professional practice. The reason is that it may mean that many clinicians have to begin again, with reorganization of the problem and that they may not perceive how the ADHD can evolve from the child to the adult, with a pathoplastic adjustment of the symptoms. These symptoms tend to be interpreted erroneously in the adult, for example, restlessness due to anxiety, distractibility due to lack of interest or motivation. This questionable attribution of the symptoms has long prevented the

conceptual and gnosiological growth with ADHD as the patients grow.

The GEDA-A (Group for the Study of Attention Deficit in the Adult), an independent study group created in the year 2010, is made up of 23 Spanish psychiatrists specialized in ADHD. The group was established in order to debate the special problems of this condition, and to spread their conclusions and to make work proposals that facilitate better understanding of this clinical picture, from a neurobiological and behavioral point of view. Facilitating its diagnosis, treatment and approach of the extensive comorbid pathology in the adult ADHD were among its objectives. In this sense, the first project of the GEDA-A was to make a survey in order to know the opinion of the Spanish clinicians about attention hyperactivity deficit disorder in the adult population based on their personal clinical experience. The secondary objective consisted in evaluating possible differences of opinion based on years of experience of the physicians, their specialty and work setting.

## METHODOLOGY

### Study design and ethics guidelines

In the GEDA\_A group, a cross-sectional and anonymous opinion survey that included a total of 11 questions was designed. The clinicians used a 1 to 5 point Likert type scale to score their grade of agreement with each statement. Value 1 represented disagreement in value 5 the greatest grade of agreement.

Information was collected on the demographic and professional characteristics of the person surveyed and questions to estimate the volume of the population attended in the clinician's office. Eleven questions were designed to estimate possible differences in opinion on the diagnosis, treatment, and scientific evidence on ADHD in childhood, adolescence and adulthood (see Annex 1). Estimation of the proportion of symptoms and/or behavior related with ADHD in the adult patients attended by those surveyed was studied.

Questions 1 to 5 refer to the clinician's opinion on a dimension of ADHD regarding its application in childhood adolescence and adult age.

Questions 7 to 11 refer to different aspects of ADHD in the adult age. Specifically, question 9 refers to different symptoms or behaviors that may be related with ADHD in the adult, and how frequently frequency they are observed in the offices of each surveyed clinician. Questions 7 to 9 are scored on a 1 to 5 point Likert-type scale. Value 1 represents the least frequency and value 5 the greatest frequency of appearance.

The number of 2618 active psychiatrists in 2008 was not calculated formally ("Offer and need for medical specialists in Spain 2008-2025," December 2008, University of Las Palmas de Gran Canaria, Ministry of Health and Consumer Affairs). The sample of 384 psychiatrists represents 14.7% of the specialists. The sample of neurologists (67 surveyed out of a population of 1277 neurologists) accounts for 5.2% of the specialists. The population of specialists in addictive behaviors and primary care representatives were not sufficiently represented.

The need to distribute the survey among a sample of neurologists was also discussed by the GEDA-A group. The surveys were done between the months of May and July 2011. The surveys were distributed in closed and anonymous envelopes by representatives of the Industry. The surveyed physicians filled out the survey on standard forms (Annex I) and voluntarily participated without receiving any economic compensation. Because of the characteristics of the study, evaluation by the Ethics Committee was not necessary.

### Statistical analysis

A descriptive analysis was conducted with the results in the qualitative variables in form of frequency and percentages. Fisher's exact or the Chi<sup>2</sup> test, as corresponded, were used to compare these types of variables.

Quantitative variables were analyzed descriptively, obtaining the mean, 95% confidence interval of the mean and median as results. Comparisons of these types of variables were made using the Student's t test or the analysis of the variance (ANOVA), as corresponded.

The results for questions 1 to 5 were compared between the three stages of life (childhood, adolescence, adult age) using the ANOVA of a single factor of repeated measurements because one same survey evaluates the question for the three groups of patients, with Bonferroni correction of multiple comparisons and a significance level of  $p < 0.05$ .

To analyze the results of question 9 ("frequency of adult ADHD symptoms") an evaluation of the global score on the frequency of each aspect observed in the medical office was made and the scores in each group of specialists surveyed were compared. Differences of opinion between the specialists surveyed, that is psychiatry, neurology, general/family physician, specialist in addictive behaviors and other specialties, were compared. The ANOVA of a single factor, with Bonferroni or Games-Howell adjustments for multiple comparisons, and significance level of  $p < 0.05$ , were used for the analysis.

The statistical significance level was established at 0.05 in every case. The SPSS 14.0 program (SPSS Inc., Chicago, IL; USA) was used for the statistical analysis.

### RESULTS

A total of 484 clinicians distributed in 14 regional communities filled out the survey. Absent data accounted for less than 1% in most of the variables studied. A total of 56.9% of the clinicians were men ( $n=271$ ) and 43.1% women ( $n=205$ ). In 8 cases, this information was not stated. Mean age of those surveyed was 45 years (95% CI 44 to 46). An age difference of 1.9 years (95% CI 0.3 to 3.5) older in the surveyed male gender ( $p=0.024$ ) was observed. No significant differences were observed in the age of those surveyed based on their specialty.

The predominant specialty was psychiatry, with 384 participants (79.5%), 67 neurologists (13.9%), 19 specialist in addictive behaviors (3.9%), 9 family physicians (1.9%) and 4 clinicians of other specialties (0.8%). The specialty of the participant was not indicated in one case. The proportion of psychiatrists surveyed compared to number of practicing psychiatrists published in the year 2008 was 14.7% (384 psychiatrists out of 2618) and of neurologists 5.2% (67 neurologists out of 1277 practicing). Specialists in addictive behaviors and family physicians were not sufficiently represented in the study.

Those surveyed had an average of 17 years of professional practice (95% CI 16 to 18), this ranging from 1 to 46 years of experience. There were no differences between men and women, but there were differences based on type of specialty, number of years of professional practice being significantly greater in addictive behavior specialists who had an average of 22 years (95% CI 19 to 25 years) versus psychiatry specialists in which it was 17 years (95% CI 16 to 18) ( $p=0.032$ ).

Regarding work setting, 72% of the clinicians worked in the public area and 3.7% in the private area, with 24.3% working in both areas. Work site was predominantly outpatient clinic or mental health center or unit (52.3%) followed by hospital sites, with 31.3%. A total of 78.8% of those surveyed would in the outpatient area (95% CI, 13.6 to 14.5). They attended an average of 14 patients (95% CI 13.6 to 14.5) with any type of disease in their daily consultations. In the last six months, they treated an average of 5 adult ADHD patients (95% CI 4.4 to 5.8). The specialist who participated in the study fundamentally attended the adult population.

When the opinion of those surveyed was compared, significant differences of opinion were observed in relation to the three age groups in ADHD and all of the dimensions studied ( $p < 0.0001$ ). The evaluation by those surveyed for adult age had a systematically lower grade in accordance with the question proposed (Figures 1 and 2).

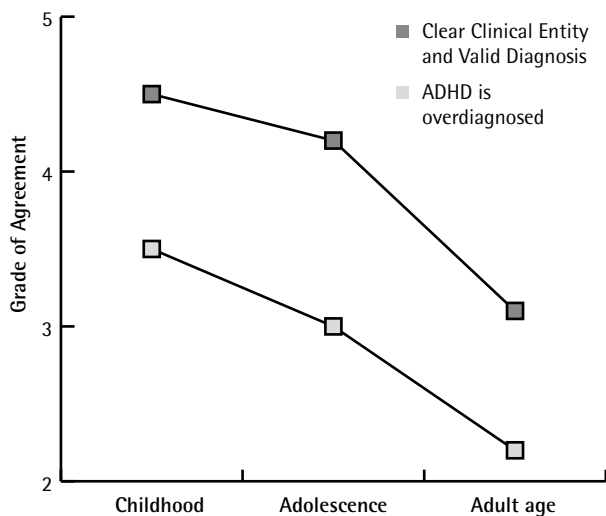
Most of those surveyed considered that ADHD in childhood was a clear diagnostic and clinical entity. However, this consideration decreased if we refer to

adolescent and adult ages, respectively (Figures 1 and 2). Regarding the question on if they considered that ADHD was overdiagnosed in the different stages of life, the opinion of those surveyed was that ADHD was overdiagnosed, above all, in the childhood stage and less in adolescence and adult age (Figure 1). In relation to the scientific evidence on the treatments, there was a high grade of agreement in the case of childhood and adolescence. On the contrary, it decreased in the adult age (Figure 2). Similarly, there was agreement regarding the existence of drugs with indication for ADHD, with elevated grade of agreement in childhood and adolescence and clearly less in the case of the adult (Figure 2). Most of those surveyed agreed with the statement that ADHD was adequately treated in childhood in their clinical setting, while this decreased in adolescence and above all in the adult age, in which most of the sample disagreed (Figure 2).

No statistically significant differences were observed in the opinion based on the demographic and professional characteristics of those surveyed, except in accordance with the type of specialist. In the latter it was observed that there were no differences of opinion between psychiatrists and

neurologists. However, specialists in addictive behaviors differed in their opinion when considering if ADHD was a clear clinical entity and valid diagnoses in the adult age. There was greater degree of agreement with the question in this group of specialist compared to the psychiatrists ( $p=0.003$ ) and the neurologists ( $p<0.0001$ ). There was also greater agreement with the question, among the specialists in the addictive behaviors in their opinion on whether there are drugs with indication for ADHD treatment in childhood, adolescence and adult age ( $p<0001$ ).

Most of those surveyed considered that they very rarely (19.3%) or quite uncommonly (28.6%) diagnose ADHD in adults. However 17.6% did so with quite a lot of frequency and 5.8% with much frequency. We found similar data regarding ADHD treatment in the adult. One out of every five surveyed manifested they did it very infrequently (21%). One out of every four did so quite infrequently (25.2%). Another one fourth of the treated adult patients with ADHD frequently (19.5%) or very frequently (6.4%).

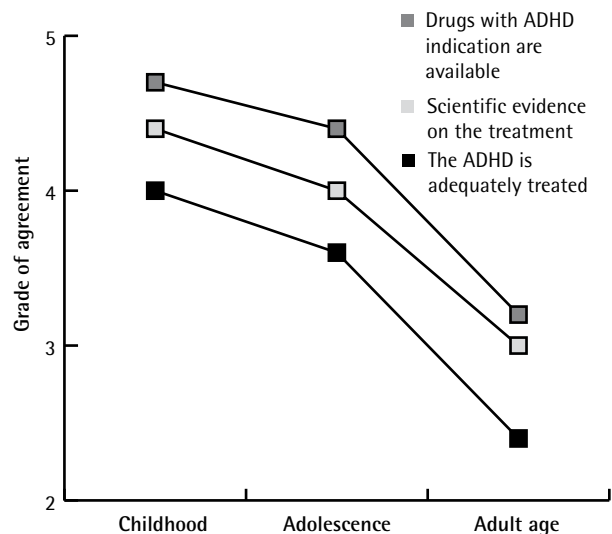


Question/mean (95% CI)	Childhood	Adolescence	Adult age
Clear Clinical Entity and Valid Diagnosis	4.47 (4.39-4.54)	4.2 (4.09-4.31)	3.33 (3.19-3.46)
ADHD is overdiagnosed	3.43 (3.28-3.58)	2.96 (2.83-3.09)	2.25 (2.13-2.38)

95% CI: 95% of the confidence interval of the mean  
Grade of agreement: 1-Totally disagree; 2-Disagree; 3-Neither agree or disagree; 4-Agree; 5-Totally agree

Figure 1

Opinions of the clinicians regarding the questions on the clinical entity and diagnostic criteria of ADHD in childhood, adolescence and adult age



Question/mean (95% CI)	Childhood	Adolescence	Adult age
Scientific evidence on the treatment	4.35 (4.26-4.44)	3.99 (3.88-4.11)	3.03 (2.89-3.18)
Drugs with ADHD indication are available	4.63 (4.56-4.71)	4.39 (4.26-4.52)	3.20 (3.02-3.38)
The ADHD is adequately treated	4.07 (3.96-4.18)	3.61 (3.49-3.74)	2.46 (2.33-2.58)

95% CI: 95% of the confidence interval of the mean  
Grade of agreement: 1-Totally disagree; 2-Disagree; 3-Neither agree or disagree; 4-Agree; 5-Totally agree

Figure 2

Opinions of the clinicians to the questions on scientific evidence, drug availability and ADHD treatment in childhood, adolescence and adult age

Significant differences in frequency in which the symptoms or behaviors were related with ADHD in the adults were observed, this being significantly more frequent ( $p < 0.0001$ ) regarding the relation of ADHD in the adult with substance abuse, anxiety, emotional instability and impulsivity (Figure 3).

Furthermore, there were differences of opinion between the psychiatry and neurology specialties compared to the specialties in addictive behaviors about the frequency with which the following symptoms or behaviors were observed ( $p < 0.001$ ): substance dependence, frequent legal problems, frequent traffic accidents, anxiety, all of them being significantly more frequent in the consultations of the addictive behaviors specialists.

One fourth of the clinicians surveyed (24.7%,  $n = 119$ ) did not know the proportion of patients with ADHD in childhood that continued to suffer the picture in the adult age. A total of 5.4% ( $n = 26$ ) considered that the proportion was between 0 and 5%. For 10% ( $n = 48$ ), the proportion was between 5 and 10% and 21.4% ( $n = 103$ ) considered that it was 10 to 20%. For 24.9% ( $n = 120$ ), the proportion of adults was between el 20 and 50%, and 13.5% ( $n = 65$ ) had the opinion that the proportion was 50%. Three of those surveyed (0.6%) did not answer the question.

Of those surveyed, 84.9% agreed or totally agreed about the need for more training in ADHD among health care professionals.

## DISCUSSION

This study represents the first opinion survey of these characteristics carried out in Spain and one of the few existing ones outside of the Anglo-Saxon setting (Edwin and McDonald, 2007). The inclusion of clinicians from different specialties that attend adults with ADHD has made it possible to obtain a more complete analysis on the care practices of ADHD in Spain than if the focus had only been on a single specialty. However, it should be taken into account the low representativity of the professional group of addictive behaviors and family physicians and the nonparticipation of psychologist in the study. In this study, certain biases should be taken into account. These are, for example the survey distribution mechanism, supported by the pharmaceutical industry, although it was done under anonymous conditions. On the other hand, the group of neurologists included is not representative of the specialty. The results obtained show consensus among the opinion of those surveyed for all of the questions proposed. For the surveyed clinicians, ADHD in the adult age is a less defined clinical entity with whose diagnosis is not as clear compared to that occurring in childhood and adolescence. In the adult age, there is less tendency to overdiagnose ADHD than in adolescence and childhood. Scientific evidence on ADHD treatment in the adult age is significantly less than in childhood or adolescence. In the opinion of the specialists, ADHD in the adult age is less adequately treated then in childhood and adolescence. It also stands out that in adolescence, these opinions are repeated in relation to ADHD in childhood. This is probably a reflection of the greater interest dedicated for

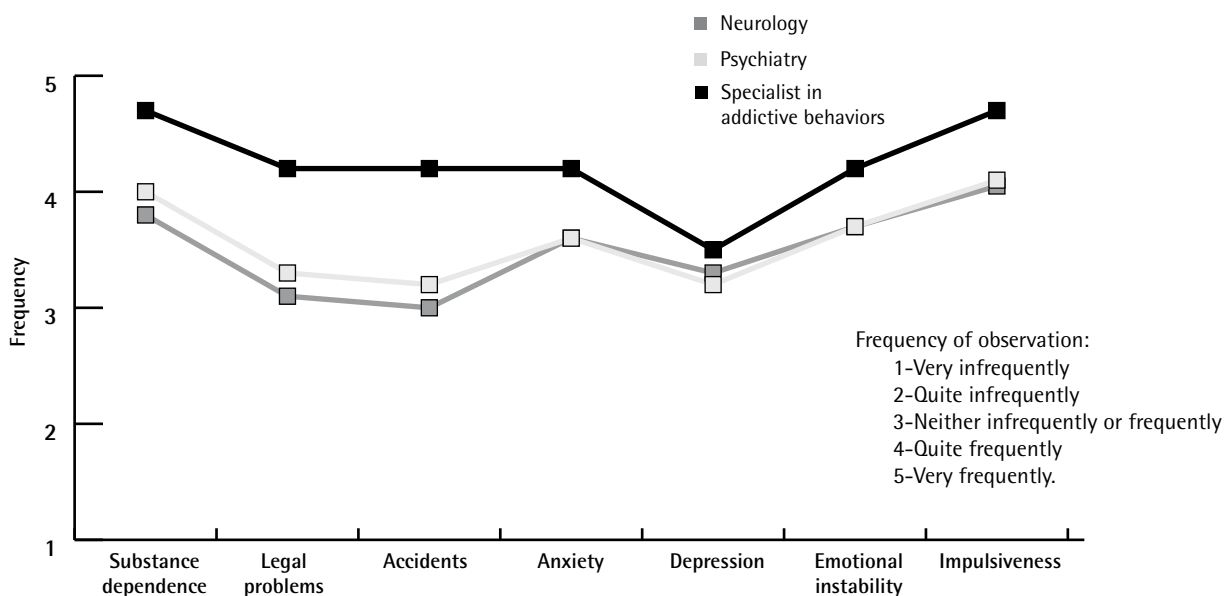


Figure 3 Frequency of appearance of symptoms and/or behaviors related with the ADHD in adults seen in the medical offices of those surveyed

decades to this disease during childhood. These results may suggest that the professionals are more reluctant to diagnose and treat ADHD in the adult age.<sup>13,14</sup>

The grade of confidence of the clinicians to diagnose and treat ADHD would follow a descending gradient according to the increase of age of the patient.<sup>15</sup> Therefore, it is tempting to establish a parallelism with the decrease that occurs with age of the most manifest ADHD symptoms in behavior, such as motor hyperactivity.<sup>5,7,13</sup>

Some of the differences observed between the clinicians of the different specialties are also striking. Thus, it seems that the professionals of addictive behaviors are those who diagnose and treat ADHD in adult age with the most determination and clearest diagnosis. This may be because these clinicians have greater sensitivity regarding the high comorbidity of ADHD with substance abuse and dependence.<sup>17</sup> Therefore, it is possible that these types of patients are especially represented in these types of care resources or sites, although it could also be due to different grades of severity of the disease in patients attended by this specialty.<sup>18</sup>

The results of this survey also suggest the need for greater diffusion of the indications of treatments for ADHD in the different age groups. It must be kept in mind that treatment cannot be recommended if the indication has not been approved by the health care authorities for each age group. In Spain, it may be adequate to continue with the same treatment during the adult age in adolescents in whom the symptoms have persisted until the adult age and who have clearly benefited from treatment with atomoxetine. However, initiating treatment with atomoxetine in adults is not considered as adequate.<sup>16</sup> The indication for treatment of ADHD in the adult has been approved in the United States, Canada, Turkey and Switzerland. Modified release methylphenidate capsules is the only product with approved indication for ADHD in the adult in the European Union (Germany, July 2001).<sup>17,18</sup> It is expected that there will be more drugs available in the near future with the indication of *de novo* treatment in the adult age. Once we have a correct diagnosis, the pharmacological treatment, especially stimulants, provides a significant clinical improvement in adults as well. Furthermore, adequate treatment means functional improvement.<sup>20-22</sup> The global demand for training improvements in this field by 85% of the clinicians surveyed is emphasized, this coinciding with other studies.<sup>22</sup>

The response to the question on what proportion of adult ADHD patients were diagnosed during childhood or adolescence reflects lack of knowledge in the scientific literature on the subject and that epidemiological studies need to be conducted in Spain for the analysis of the prevalence of ADHD in the adult age and its evolutionary characteristics based on the patient's age as well as the diffusion of the information available in the literature in this regards.<sup>24,25</sup>

The strengths of this study include the high quality of the data collected, the proportion of absent data being less than 1% for most of the questions asked. The proportion of participants from each specialty attempts to reflect the clinical reality in the attention to the ADHD patient, who is more frequently attended in the psychiatry services. The geographic representativity of the sample, with opinions of specialists from 14 regional communities, makes it possible to consider the survey as a reflection of the national opinion.

The weaknesses of the study are related with the type of design of an opinion survey and the limitations in their subjective interpretation. Inclusion of specialist who do not attend adult ADHD patients in their consultations may be a limitation in the interpretation of the data regarding frequency of symptoms and behaviors of the patients. However, the specialists were chosen to participate in the study to study their grade of knowledge and experience, since patients with ADHD may be subject to having a large symptomatic constellation based on their comorbidity, and the specialties selected are generally the access route in the petition for health care attention and help.

In general terms, we can conclude that ADHD in the adult age there has been development among the needs of the professionals in charge of their attention. However, as a whole, it is agreed that this is a relevant problem and that advances have not been made in the diagnoses and much less in treatment, greater specific training being necessary in this field.

In view of the results and the conclusions obtained in this opinion survey on ADHD in the adult patient, the GEDA-A study group suggests that this disorder should be investigated and that new continuing medical training activities developed that respond to the demand of the Spanish clinicians. They include the develop of diagnostic and therapeutic algorithms that make it possible to facilitate the clinical the management of the adult patient with ADHD.

**Study group GEDA-A:** J Bobes, V Balanzá Martínez, J Bastardas, R Benito, J Cañete, JL Carrasco, J Correas, JL Fernández Sastre, M Ferrin, J García Campayo, C Knecht, I Martínez Gras, J Martínez Raga, S Navarro, R Ortega, G Palomar, B Piñeiro, J Quintero, G Rubio, N Szerman, P Varela, JM Vázquez, FJ Ogando.


#### ACKNOWLEDGMENTS-CONFLICTS OF INTEREST-FUNDING

The study was funded by JUSTE, S.A.Q.F., Spain. Begoña Soler performed the control of quality work and statistical analysis with a contract from Juste S.A.Q.F.

The other authors declare they have no conflicts of interest with the objectives and results of the study. We thank the 484 anonymous participating clinicians who filled out the survey.

## REFERENCES

1. Loro-López M, Quintero J, García-Campos N, Jiménez-Gómez B, Pando F, Varela-Casal P, et al. Update on attention-deficit/hyperactivity disorder treatment. *Rev Neurol*. 2009 Sep 1-15;49(5):257-64.
2. Quintero J, Navas M, Fernández A, Ortiz T. Advances in attention deficit hyperactivity disorder. What does neuroimaging provide us with? *Actas Esp Psiquiatr*. 2009 Nov-Dec;37(6):352-8.
3. Quintero J, Loro M, Jiménez B, García Campos N. Evolutionary issuer in attention deficit hyperactivity disorder (ADHD); from risk factors to comorbidity and social and academic impact. *Vertex*. 2011 Mar-Apr;22(96):101-8.
4. Kessler RC, Alder 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 Apr;163(4):716-23.
5. Kooij SJ, Bejerot S, Blackwell A, Caci H, Casas-Brugué M, Carpentier PJ, et al. European consensus statement on diagnosis and treatment of adult ADHD: The European Network Adult ADHD. *BMC Psychiatry*. 2010;Sep;3;10:67.
6. Aragonès E, Piñol JL, Ramos-Quiroga JA, López-Conrtacans G, Caballero A, Bosch R. Prevalencia del déficit de atención e hiperactividad en personas adultas según el registro de las historias clínicas informatizadas de atención primaria. *Rev Esp Salud Pública*. 2010;84:415-20.
7. Biederman J, Petty CR, Clarke A, Lomedico A, Faraone SV. Predictors of persistent ADHD: an 11-year follow-up study. *J Psychiatr Res*. 2011 Feb;45(2):150-5.
8. Murphy K, Barkley RA. Attention deficit hyperactivity disorder in adults: comorbidities and adaptive impairments. *Compr Psychiatry*. 1996;37:393-401.
9. De Quiros GB, Kinsbourne M. Adult ADHD. Analysis of self-ratings on a behavior questionnaire. *Ann N Y Acad Sci*. 2001 Jun;931:140-7.
10. Wender PH, Wolf LE, Wasserstein J. Adults with ADHD. An overview. *Ann N Y Acad Sci*. 2011 Jun;931:1-16.
11. Wingo AP, Ghaemi SN. A systematic review of rates and diagnostic validity of comorbid adult attention-deficit/hyperactivity disorder and bipolar disorder. *J Clin Psychiatry*. 2007 Nov;68(11):1776-84.
12. Wilens TE, Biederman J, Faraone SV, Martelon M, Westerberg D, Spencer TJ. Presenting ADHD symptoms, subtypes, and comorbid disorders in clinically referred adults with ADHD. *J Clin Psychiatry*. 2009 Nov;70(11):1557-62.
13. Faraone SV, Spencer TJ, Montano CB and Biederman J. Attention-deficit/hyperactivity disorder in adults: a survey of current practice in psychiatry and primary care. *Arch Intern Med*. 2004;164:1221-6.
14. Alder LA, Barkley, RA, Newcorn, JH. Performance improvement CME: adult ADHD *J Clin Psychiatry*. 2011 Apr;72(4):e15.
15. Buckley S, Dodd P, Burke A, Guerin S, McEvoy J and Hillery J. Diagnosis and management of attention-deficit hyperactivity disorder in children and adults with and without learning disability. *Psychiatric Bulletin*. 2006;30:251-3.
16. Ficha técnica de Strattera. <http://www.aemps.gob.es/cima/fichasTecnicas.do?metodo=buscar>
17. Información sobre Metilfenidato cápsulas de liberación modificada: [www.medic.de](http://www.medic.de)
18. Retz W, Rösler M, Ose C, Scherag A, Alm B, Philipsen A, et al. Multiscale assessment of treatment efficacy in adults with ADHD: A randomized placebo-controlled, multi-centre study with extended-release methylphenidate. *The World J of Biol Psychiatry*. 2010;Early Online:1-12.
19. Sobanski E. Psychiatric comorbidity in adults with attention-deficit/hyperactivity disorder (ADHD). *Eur Arch Psychiatry Clin Neurosci*. 2006;256(Suppl 1):26-31.
20. Flory K, Lynam DR. The relation between attention deficit hyperactivity disorder and substance abuse: what role does conduct disorder play? *Clin Child Fam Psychol Rev*. 2003;6(1):1-16.
21. Meszaros A, Czobor P, Balint S, Komlosi S, Simon V, Bitter I. Pharmacotherapy of adult attention deficit hyperactivity disorder (ADHD): a meta-analysis. *The international journal of neuropsychopharmacology/official scientific journal of the Collegium Internationale. Neuropsychopharmacologicum (CINP)*. 2009;12(8):1137-47.
22. Faraone SV, Glatt SJ. A comparison of the efficacy of medications for adult attention-deficit/hyperactivity disorder using meta-analysis of effect sizes. *J Clin Psychiatry*. 2010 Jun;71(6):754-63.
23. Lamber L. ADHD often undiagnosed in adults: appropriate treatment may benefit work, family, social life. *JAMA*. 2003;290:1565-7.
24. Faraone SV, Biederman J. What is the prevalence of adult ADHD? Results of a population screen of 966 adults. *J Atten Disord*. 2005;9:384-91.
25. Faraone SV, Spencer TJ, Montano CB, Biederman J. Attention-deficit/hyperactivity disorder in adults: a survey of current practice in psychiatry and primary care. *Arch Intern Med*. 2004;164:1221-6.



# GEDA-A

Attention Deficit  
Study Group  
in the Adult

Dear colleague:

The **GEDA-A** (Attention Deficit Study Group in the Adult) was created in the year 2010 and is made up of psychiatrists specialized in ADHD.

**Scientific committee:** J. Bobes, V. Balanza, J. Bastardas, R. Benito, R. Bosch, J. Cañete, JL Carrasco, J. Correas, JL Fernández Sastre, M. Ferrin, J. Garcia Campayo, C. Knecht, J. Martínez Gras, J. Martínez Raga, S. Navarro, R. Ortega, G. Palomar, B. Piñeiro, J. Quintero, G. Rubio, R. Segarra, N. Szerman, P. Varela, JM Vázquez

**Coordination:** C. Álamo

**Secretary:** P García Garcia

The GEDA-A was created in order to discuss the special problems of this condition, to spread their conclusions and to make work proposals that would facilitate better understanding of this clinical picture from a neurobiological and behavioral point of view as well as to facilitate its diagnoses, treatment and approach of the extensive comorbid condition. In this sense, the first project of **GEDA-A** consists in making a survey entitled "**Perceptions of the clinicians on attention deficit and hyperactivity disorder (ADHD) in the adult,**" whose advisory committee is made up of Doctors V. Balanzo, J. Correas and J. Quintero.

We would like to invite you to participate and to know your opinion on adult ADHD. The information obtained will be published and will serve to approach the training/diffusion of ADHD in the adult.

Thank you very much for your collaboration.

Sincerely,

GEDA-A



## Perceptions of the clinicians on the Attention Deficit and Hyperactivity Disorder (ADHD) in the adult

### Introduction

- The objective of this survey is to know the opinion of Spanish clinicians on the attention deficit and hyperactivity disorder (ADHD) in the adult (ADHD-A)
- Please respond to this questionnaire sincerely based on your personal clinical experience. Your answers will be dealt with in strict confidentiality and will never be used in an individualized manner.
- Filling out this questionnaire will take less than 5 minutes
- We thank you in advance for your participation.

DEMOGRAPHIC DATA	Current work site
Age ___ years	<input type="checkbox"/> University Hospital
<b>Gender</b>	<input type="checkbox"/> General Hospital
<input type="checkbox"/> Man	<input type="checkbox"/> Mental Health Outpatient consultation, Site or Unit
<input type="checkbox"/> Woman	<input type="checkbox"/> Drug /Addictive Behavior Center
	<input type="checkbox"/> Primary Care Center
	<input type="checkbox"/> Other (specify) _____
<b>Providence</b>	_____
<b>Specialty</b>	<b>Number of patients seen daily (average)</b>
<input type="checkbox"/> Psychiatry	_____
<input type="checkbox"/> Neurology	<b>What is your main area of activity?</b>
<input type="checkbox"/> General/Family Medicine	<input type="checkbox"/> Hospitalization unit
<input type="checkbox"/> Specialist in addictive behaviors	<input type="checkbox"/> Interconsultation/Liaison/Emergencies
<input type="checkbox"/> Others (specify)	<input type="checkbox"/> Day Hospital
<b>Work site:</b>	<input type="checkbox"/> Outpatient
<input type="checkbox"/> Public	<b>How many years have you been in the medical practice?</b>
<input type="checkbox"/> Private	_____
<input type="checkbox"/> Both	

# GEDA-A

Attention Deficit Study Group  
in the Adult

Please, indicate the answer which you most agree in the following score

1	2	3	4	5	
Totally disagree	Disagree	Neither agree nor disagree	Agree	Totally agree	
1. Attention Deficit Hyperactivity Deficit Disorder (ADHD) is a clear clinical condition and valid diagnosis during:					
Childhood	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adolescence	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adult Age	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2. In your opinion and in your clinical work setting, is there a tendency to overdiagnose ADHD.					
Childhood	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adolescence	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adult Age	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
3. Is there sufficient scientific evidence on treatments of ADHD in:					
Childhood	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adolescence	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adult Age	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4. Is there currently drugs with indication for treatment of ADHD in:					
Childhood	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adolescence	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adult Age	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
5. In your clinical setting, ADHD is adequately treated in:					
Childhood	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adolescence	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Adult Age	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
6. In your opinion, would greater training in ADHD be necessary among health care professionals					
	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

# GEDA-A

Attention Deficit Study Group  
in the Adult

**Please, indicate the answer which you most agree in the following score**

1	2	3	4	5
Totally disagree	Disagree	Neither agree nor disagree	Agree	Totally agree

7. In the daily clinical practice, you diagnose ADHD in the adult age  
 1  2  3  4  5

8. In the daily clinical practice, you treat adult patients with ADHD  
 1  2  3  4  5

9. In your opinion, with what frequency are the following symptoms or behaviors related with ADHD in the adult?

Substance abuse/dependence  
 1  2  3  4  5

Frequent legal problems  
 1  2  3  4  5

Frequent traffic accidents  
 1  2  3  4  5

Anxiety  
 1  2  3  4  5

Depression  
 1  2  3  4  5

Emotional Instability, dysregulation  
 1  2  3  4  5

Impulsivity  
 1  2  3  4  5

10. According to your experience/opinion, of the total of patients with ADHD in childhood, - How many continue to have symptoms in the adult age? Indicate with an X

I do not know  
 0.5%  
 5-10%  
 10-20%  
 20-50%  
 50%

11. In the last 6 months, how many patients have you treated with ADHD in the adult age?

**Comments:**

\_\_\_\_\_

\_\_\_\_\_

**Thank you very much for your participation**