Review

Raquel Vidal-Estrada[1]
Rosa Bosch-Munso[1, 2]
Mariana Nogueira-Morais[1, 2]
Miquel Casas-Brugue[1, 2]
Josep A. Ramos-Quiroga[1, 2]

Psychological treatment of attention deficit hyperactivity disorder in adults: a systematic review

[1]Programa de TDAH. Servicio de Psiquiatría
Hospital Universitari Vall d'Hebron
CIBERSAM. Barcelona

[2]Departamento de Psiquiatría y Medicina Legal
Universidad Autònoma de Barcelona

Introduction. Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder of childhood onset. The disorder persists into adulthood in most cases, significantly affecting patient function. Although the first-line choice of treatment for ADHD is pharmacological, drug treatments are not always sufficient. All the published studies on the psychological treatment of ADHD were systematically reviewed for the present article.

Method. The MEDLINE and PsychINFO electronic databases were searched using the terms *psychological treatment* OR *psychotherapy* OR *psychosocial treatment* AND *ADHD*. Patient age was restricted to adults (all *adult:19+ years*).

Results. Eighteen published studies met inclusion criteria for the review. Fifteen efficacy studies of psychological treatment were selected (cognitive behavioral therapy, metacognitive therapy, dialectical behavior therapy, coaching, cognitive remediation) and three previous reviews.

Conclusions. The results indicate that cognitive behavioral therapy is the most effective psychological treatment for ADHD symptoms in adults and the comorbid symptoms of anxiety and depression, which have an important functional impact on the daily life of patients. However, more research is needed to know the differential effects of each psychological approach in relation to improved ADHD symptoms in adults. Finally, future directions for the psychosocial treatment of ADHD problems of adults are suggested.

Key words: Attention deficit/hyperactivity disorder, Psychological treatment, Cognitive behavioral therapy, Dialectical behavior therapy, Psychosocial treatments

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Correspondence:
J. Antoni Ramos-Quiroga
Servicio de Psiquiatría
Hospital Universitari Vall d'Hebron
Passeig Vall d'Hebron, 119 - 129
08035 Barcelona
E-mail: jaramos@vhebron.net

Tratamiento psicológico del trastorno por déficit de atención con hiperactividad en adultos: revisión sistemática

Introducción. El trastorno por déficit de atención con hiperactividad (TDAH) es un trastorno del neurodesarrollo de inicio en la infancia y que en la mayoría de los casos persiste en la edad adulta afectando significativamente el funcionamiento del paciente. Aunque el tratamiento farmacológico se considere el tratamiento de primera elección para el TDAH en adultos, los tratamientos farmacológicos no siempre son suficientes. El objetivo de este artículo es revisar sistemáticamente todos los estudios publicados hasta el momento sobre el tratamiento psicológico del TDAH en adultos.

Método. El método utilizado fue una búsqueda bibliográfica en las bases de datos MEDLINE y *PsychINFO* usando los términos *psychological treatment* OR *psychotherapy* OR *psychosocial treatment* AND *ADHD*. Se limitó la edad, seleccionando los tratamientos de adultos (all *adult:19+ years*).

Resultados. Cumplieron los criterios de inclusión 18 estudios publicados. Se seleccionaron 15 estudios de eficacia de tratamientos psicológicos (terapia cognitivo-conductual, terapia metacognitiva, terapia dialéctico, conductual, *coaching* y estudios de rehabilitación cognitiva) y 3 revisiones previas.

Conclusiones. Los resultados indican que la terapia cognitivo-conductual es el abordaje más eficaz de tratamiento psicológico del TDAH en adultos y de la sintomatología comórbida de ansiedad y depresión; síntomas que también tienen una importante repercusión funcional en la vida diaria del paciente. No obstante, se requiere mayor investigación para conocer los efectos diferenciales de los distintos abordajes psicológicos en relación a las mejoras de la sintomatología del TDAH en adultos. Finalmente, se sugieren direcciones futuras para los estudios de tratamiento psicológico.

Palabras clave: Trastorno por déficit de atención con hiperactividad, Tratamiento psicológico, Terapia cognitivo-conductual, Terapia dialéctico-conductual, Tratamientos psicosociales

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder of childhood onset that may persist into adulthood, significantly affecting the patient's functioning in most cases.[1] Symptoms of what we now call ADHD were described in children in the early 20th century.[2] However, since the 1970s, numerous studies have provided evidence of the validity of the diagnosis of ADHD in adults.[3-5]

Although drug therapy is considered the first choice for ADHD in adults, pharmacological approaches are not always sufficient.[6] A variety of factors may limit the effectiveness of drug treatment. Some adults with ADHD comply poorly with drug therapy.[7] Other patients still have significant symptoms despite the use of psychotropic drugs and 20-50% experience adverse effects of drug treatment.[8] Other factors include the high prevalence of comorbid disorders associated with ADHD in adults, 70-75% of whom have comorbidity[9] and psychological background variables that contribute to the persistence of the disorder, such as the erroneous compensatory strategies and maladaptive thoughts developed by many patients.[10] In all these cases, the Canadian ADHD Resource Alliance,[11] the British Association for Psychopharmacology,[12] European Adult ADHD Network[13] and National Institute for Clinical Excellence[14] recommend multimodal treatment that includes psychological treatment.[15]

The first published study of individual psychological treatment of ADHD in adults was by Wilens[16] and the first publication of group therapy, by Wiggins.[17] Non-controlled studies of cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT) and coaching were subsequently published. Six randomized controlled trials of psychological treatment of ADHD in adults have been published.[6] These studies meet many of the conditions set by the APA[18] for empirically valid research in psychological treatment[19] (see Table 1). Firstly, such studies should have an experimental group and a control group to which patients are assigned randomly. Therapeutic techniques should be systematized in a manual and the results should be evaluated according to previously standardized procedures by independent evaluators.

METHODOLOGY

Search strategy

The aim of this paper was to systematically review research to date on the psychological treatment of ADHD in adults. The method used was a literature search in MEDLINE and PsychINFO using the terms *psychological treatment* OR *psychotherapy* OR *psychosocial treatment and ADHD.* No publication date or language limits were applied. The only restriction was age, treatments for adults being selected (all *adult: 19+ years).*

Inclusion and exclusion criteria

Of the 186 articles published, 15 efficacy studies of psychological treatment and 3 previous literature reviews were selected. No neuropsychology studies or articles on clinical recommendations, diagnosis, prevalence and psychosocial functioning of patients with ADHD were included. Studies of psychological treatment targeting only the comorbidity symptoms of ADHD were also excluded. The articles included in the review are summarized in Table 2, classified as initial studies, non-controlled and controlled, and indicating group or individual psychological treatment.

A systematic review was made of all the investigations of the psychological treatment of adult ADHD published to date. Unlike previous literature reviews, not only cognitive behavioral research studies were included, but also research about other psychological treatment models.[10, 20, 21]

COGNITIVE BEHAVIORAL GROUP THERAPY

Brief Group Therapy (Wiggins et al. 1999)

This study was the first investigation of group psychological treatment for ADHD.[17] The aim was to study the effects of a psychoeducation group on ADHD symptoms. The method was to compare a psychoeducation group with a control group of the waiting list for a sample of 17 subjects. The results, evaluated by self-reporting, indicated diminished disorganization, inattention and emotional lability and increased self-confidence in patients. However, the study sample was small so it is difficult to generalize the results.

Metacognitive Therapy (Solanto et al. 2008 and 2010)

In 2008, the Solanto[22] group studied a sample of 38 patients who received 12 sessions of metacognitive therapy based on cognitive behavioral strategies.

The structure of therapy was as follows: 1 initial session, 5 sessions of Time Planning Strategies, Behavior Activation, Organizational Strategies, Motivation Maintenance, and Management of Automatic Thoughts, and 6 sessions to generalize the progress made during treatment.

Table 1 Empirical evidence of psychological treatments in ADHD

Effective psychological treatments

IA Evidence from meta-analysis of randomized controlled trials

IB Evidence from at least one randomized controlled study

Probably effective treatments

IIA At least one non-randomized controlled study

IIB At least one quasi-experimental study

Experimental phase treatments

III Descriptive studies (comparative, correlation and case-control)

IV Papers and opinions of expert committees and/or clinical experiences of renowned authorities

Adaptado de Nutt, et al. 2007

Table 2 Empirical evidence of psychological treatments in ADHD

Treatment	Authors	Format	Method
Initial studies			
Cognitive therapy	Wilens (1999)	Individual	No control group
Psychoeducation	Wiggins (1999)	Group	No control group
Non-controlled studies			
Cognitive behavioral therapy			
Combined treatment	Rostain y Ramsay (2006)	Individual	No control group
Cognitive behavioral rehabilitation	Virta et al. (2008)	Group	No control group
Metacognitive therapy	Solanto et al. (2008)	Group	No control group
Dialectical behavior therapy			
Dialectical behavior therapy	Hesslinger et al. (2002)	Group	No control group
Dialectical behavior therapy	Phillipsen et al. (2007)	Group	No control group
Training in mindfulness	Zylowska et al. (2007)	Group	No control group
Coaching	Kubik et al. (2010)	Individual	No control group
Controlled studies			
Cognitive behavioral therapy			
CBT in medicated patients with residual symptoms	Safren et al. (2005)	Individual	Control group
CBT *vs* relaxation and support therapy	Safren et al. (2010)	Individual	Control group
Brief CBT and cognitive training	Virta et al. (2010)	Individual	Control group
Metacognitive therapy	Solanto et al. (2010)	Group	Control group
Cognitive rehabilitation program	Stevenson et al. (2002)	Group	Control group
Cognitive rehabilitation program	Stevenson et al. (2003)	Group	Control group

The results were evaluated using Conners Adult ADHD Rating Scale-Self Report (CAARS-S:S), Brown ADD Scales (BAADS) and On Time Management, Organization and Planning Scale (ON-TOP). At the end of treatment, 47% of the patients in the sample showed improvement in Attention on the CAARS and improvement on all the BADDS subscales. In the study by Knouse and Safren (2010), the size effect (SE) of such changes was calculated (CARRS: 0.588 and BADDS: 0.669). Improvements were also achieved on the self-reported measures of time management, organization and planning skills (ON-TOP test: SE 0.615). However, there was no reduction in hyperactivity symptoms as self-reported by patients on the CAARS.

In 2010, the same Solanto[23] group conducted a randomized controlled trial in which a metacognitive therapy group and a psychoeducation group were compared in a sample of 88 patients. The results were evaluated by self-reporting (CAARS, BADDS, ON-TOP), a blind evaluator, collateral informants (CAARS-O) and a semistructured pre- and post-treatment interview (AISRS). The patients of the metacognitive therapy group achieved a significant improvement in symptoms of inattention and memory compared to the psychoeducation group (ratio=5.41). The decrease in symptoms was observed in self-reports and by observers and clinicians. No significant differences were observed between the two groups in organizational and planning skills or comorbid symptoms of depression.

Cognitive Behavioral Group Rehabilitation (Virta et al., 2008)

The aim of this study was to evaluate the improvements in ADHD symptoms achieved after cognitive behavioral group therapy.[24] The sample consisted of 29 patients without a control group. Therapy sessions were organized as follows: Psychoeducation Module ("Introduction to Program"), Motivational Module (two sessions: "Neurobiology, Medication and Motivation for Change" and "Motivation and Initiation of Activities"), Organization and Attention Module, Regulation of Emotions and Anger Management, Interpersonal Skills, Coping Strategies for Impulsivity and Other Comorbid Conditions and Treatment of Maladaptive Thoughts ("Self-esteem").

As a result of the intervention, ADHD symptoms diminished (BADDS Total: SE 0.38 and BADDS Attention SE 0.33) and depressive symptoms assessed by the BDI (Beck Depression Inventory) decreased significantly.

Subsequently, a follow-up study of the previous investigation was conducted.[25] In the investigation of Virta,[24] ADHD symptoms were evaluated 3 months before treatment (T1), at the start of treatment (T2) and at the end of treatment (T3). In the most recent study,[25] it was observed that the improvement in ADHD symptoms was maintained significantly 3 months after ending treatment (T4) and 6 months after ending treatment (T5), not observing any differences in the depressive symptoms (T5).

Cognitive Rehabilitation Program (Stevenson et al. 2002)

In this study, a cognitive rehabilitation group was compared to medicated and non-medicated patient control groups, with a total sample of 43 patients.[26] Cognitive rehabilitation consisted of 8 sessions of individual support, cognitive functioning training, and internal and external coping strategies (impulsivity management and anger management), organization of the environment and psychoeducation. The measures used were the ADHD Checklist, Adult Organization Scale, Davidson and Lang Self Esteem Measure and State-Trait Anger Expression Inventory (STAXI).

Improvements in ADHD symptoms (ADHD Checklist: TE 1.65), organizational skills, self-esteem and decreased anger status were found and these results were maintained at 2 months and one year of treatment. At the last follow-up assessment, improvements in the anger trait were obtained. However, no significant improvement in anxiety and depression symptoms was observed.

In 2003, the same Stevenson group[27] conducted a cognitive rehabilitation study in which patients had minimal contact with the therapist; a self-help manual was used and 3 individual sessions were scheduled. The results were evaluated using the same scales as in the previous investigation by the Stevenson group. Improvements in ADHD symptoms, organizational strategies, self-esteem and anger management were achieved and this improvement was maintained at 2 months of treatment. There was no improvement in the comorbid symptoms of anxiety and depression.

INDIVIDUAL COGNITIVE BEHAVIORAL THERAPY

Cognitive Therapy (Wilens et al. 1999)

This is the first study of individual psychological treatment for ADHD.[16] The aim was to investigate the results of treatment consisting of 36 sessions of individual cognitive therapy based on the management of maladaptive emotional reactions. The sample consisted of 26 patients on drug therapy, with no control group. The results were assessed using self-report scales and the Clinical Global Impression Scale (CGI) for ADHD symptoms, anxiety and comorbid depression. The results showed a decrease in ADHD symptoms

as assessed by CGI. On the self-report scales, improvement was observed in the ADHD symptoms (33% reduction), anxiety and depression. Study limitations were the small sample, lack of a follow-up study and low internal validity due to the absence of a control group.

Cognitive Behavioral Therapy in patients on medication with residual symptoms (Safren et al. 2005)

The Safren group[28] compared a combination treatment of individual CBT (n=16) to a medication-only group (n=15), with randomized assignment to the two groups. Patients in the CBT group were taking medication in a stable dose, but still showed residual symptoms.

Therapy included 3 main modules: Organization and Planning (Module 1), Distraction Reduction (Module 2), Cognitive Strategies (Module 3) and 3 optional modules: Procrastination Management, Anger and Frustration Management and Interpersonal Skills.[29] In the main modules, work was done on task prioritizing, problem solving, modifying the environment to reduce distractibility, self-instruction and management of maladaptive thoughts.

The results were a decrease in symptoms in the CBT group as reported by the patient and the evaluator. The measures of the independent evaluator showed a reduction in symptoms on the ADHD Symptom Scale ($p<0.01$), overall severity (CGI $p<0.002$), anxiety ($p<0.04$) and depression ($p<0.01$) as evaluated using the Hamilton Scales.

According to self-report measures, after treatment the patients who received combined therapy had less ADHD symptoms (ADHD Symptom Severity $p<0.0001$) and less comorbid symptoms assessed by the Beck Depression Inventory BDI-II ($p=0.06$) and Beck Anxiety Inventory ($p<0.04$). There was a significant difference in the number of patients who received CBT (56%) and responded to treatment compared to nonresponders (13%) ($p<0.02$).

CBT vs. relaxation and support in patients on medication with residual symptoms (Safren et al. 2010)

This controlled randomized trial compared CBT (with the same content as the previous study[28]) and a psychoeducation and relaxation group.[30] The total sample was 86 patients (43 subjects in the CBT group and 43 in the control group). The measures used to evaluate the results were the CGI, ADHD Rating Scale and Current Symptoms Scale (CSS).

The study showed a significant decrease in ADHD symptoms in the CBT group compared to the medication-only group (ADHD Rating Scale, $p<0.02$; CSS scale, $p<0.001$; and CGI scores, $p<0.03$). Improvements were maintained at 6 and 12 months of follow up, except on the CSS scale.

Combined Treatment (Rostain and Ramsay, 2006)

This study was undertaken to investigate the results of combined treatment with individual CBT and medication.[31] The sample consisted of 43 subjects with no control group. Psychological treatment consisted of 16 sessions involving psychoeducation, conceptualization of the patient's difficulties, review of coping strategies for managing ADHD symptoms, modification of maladaptive coping models and identification and use of adaptive personal resources.

The ADHD symptom results were evaluated using the BADDS, CGI and Clinical Global Impression for ADHD (CGI-A) scales. Comorbid symptoms were assessed with the Beck Anxiety Scale (BAI), Beck Depression Inventory (BDI), Beck Hopelessness Scale (BHS) and Hamilton Anxiety and Depression Scales (HAM-A and HAM-D).

In the post-treatment evaluation, improvement was evident on all the BADDS subscales (BADDS-I total: SE 0.91 and BAADS Attention: SE: 1.065). A decrease in the comorbid symptoms of anxiety and depression was found, as measured by self-reporting (with the following size effects: Beck Scales, BDI: 1.03, BAI: 0.68; BHS 0.53) and clinical assessment (Hamilton Scales: HAM-D: 1.16; HAM-A 1.30). However, the improvements associated respectively with medication or psychological treatment could not be determined in this study.

Brief Cognitive Behavioral Therapy and Cognitive Training (Virta et al. 2010)

The aim of this study was to compare an individual CBT group, a cognitive rehabilitation group and a control group of patients assigned by randomization.[32] The content of the individual CBT sessions was the same as for the group approach of the previous study,[22] but with 3 sessions dedicated to working on therapeutic goals with the patient. The results were evaluated by means of BADDS, ASRS, CGI and SCL-16 (an adaptation of the SCL-90 for assessing ADHD symptoms).

The improvement was greatest in the individual CBT group (Memory: $p<0.05$ and Attention: $p<0.01$ subscales of the BADDS). Sixty percent of the individual CBT group showed lower BADDS, ASRS and SCL1-6 scores as well as reduced severity on CGI after treatment. In contrast, only

20% of patients in the control group and cognitive rehabilitation group showed improvement in the ADHD symptoms.

DIALECTICAL BEHAVIOR GROUP THERAPY

There are currently three efficacy studies of Dialectical Behavior Therapy (DBT) applied to the treatment of ADHD in adults. The social relationship difficulties arising from ADHD symptoms are addressed in the Interpersonal Skills Module, hyperactivity and disorganization in the Tolerating Discomfort Module, emotional instability and impulsivity in the Regulation of Emotions, and inattention in the Mindfulness Module.[33]

Dialectical Behavior Group Therapy (Hesslinger et al., 2002)

In this pilot study, the treatment outcomes of a DBT group (n = 8) and a control group (n = 7) were compared.[34] Treatment lasted 13 sessions and had the following content: psychoeducation ("clarification"), awareness skills ("neurobiology and mindfulness"), planning strategies ("chaos and control"), functional analysis of problem behaviors ("behavior analyses"), regulation of emotions, psychoeducation of medication, impulsivity treatment, distress tolerance skills, approach to substance abuse, interpersonal skills and a family session.

The post-treatment results were evaluated using the ADHD Checklist and SCL-16 for ADHD symptoms and the BDI for comorbid depressive symptoms. Furthermore, changes in attention levels were evaluated with neuropsychological tests (Stroop, Verbal Fluency Test, Wechsler Digits, the Weschler Memory Scale, KLT and the d2-Test). After treatment, decreased ADHD symptoms (SCL-16: p=0.02), ADHD-Checklist (p=0.01) and depression (BDI-II, p=0.05) were observed in patients treated with DBT. There were also improvements in attention at the neuropsychological level (Wechsler Digits and Stroop Test, p=0.018).

Dialectical Behavior Group Therapy (Phillipsen et al. 2007)

The aim of this study was to expand the pilot study of Hesslinger[35] to a sample of 72 subjects.[33] The DBT content was the same as in the previous study and the duration was 13 sessions. Results were evaluated with the ADHD Checklist, SCL-16 and BDI.

In the post-treatment evaluation, an improvement in ADHD symptoms was observed (ADHD-Checklist, p<0.001; SCL-16, p<0.001 and BDI, p<0.001). On the other hand, patient satisfaction with regard to the modules they considered most helpful was also evaluated. These modules were behavior analysis, mindfulness and regulation of emotions. In contrast, the impulsivity and tolerating anxiety modules were the most useful for patients with combined subtype ADHD.

Mindfulness Training (Zylowska et al. 2007)

The objective of this investigation was to study the improvements achieved after mindfulness training with psychoeducation.[36] The study sample was 18 adults and 7 adolescents. In adults, ADHD symptoms were assessed using the ADHD Rating Scale and in adolescents, using the SNAP-IV. With regard to comorbid symptoms, the post-treatment changes were studied using the Beck Scales for Anxiety and Depression in Adults and the Kovacs Child Depression Inventory and Revised Children's Manifest Anxiety Scale (RCMAS) for adolescents. Improvements were also assessed with neuropsychological tests (Stroop Test, Attention Network Task, Digits and the Trail-Making Test).

After treatment, both adults and adolescents showed a decrease in ADHD symptoms (ADHD Rating Scale p<0.01). Among the comorbid symptoms, anxiety (BAI, p=0.02) and depression improved (BDI, p<0.01). There were no significant improvements in comorbid symptoms in adolescents. On the other hand, there were also improvements in neuropsychological measures of the Attention Network Task, Stroop Test and Trail-Making Test (p<0.01).

COACHING

The first study of the effectiveness of coaching in patients with ADHD symptoms was by Kubik.[37] The sample included 83 adults with inattention problems or organizational difficulties who did not meet criteria for the diagnosis of ADHD. Treatment consisted of 6 coaching sessions. Before and after these sessions, the results were evaluated using the researcher's scale, the ADHD Outcome Rating Scale, Adult Areas of Concern (AOC-D). This test evaluates the patient's concerns about ADHD symptoms. As a result, improvements in attention were obtained (cognitive, distractibility and inattentive concerns factors: p<0.01) and impulsivity was diminished (behavior outcomes factor: p<0.01).

These results are not generalizable given the methodological shortcomings of the study. However, this initial investigation demonstrates how coaching can improve

some symptoms of attention problems, procrastination and impulsivity.

CONCLUSIONS

This review includes all the published studies of psychological treatment of ADHD in adults, according to the criteria followed in the systematic review. In all the studies reviewed, cognitive behavioral therapy proved to be the most effective approach to the psychological treatment of adult ADHD and the comorbid symptoms of anxiety and depression, symptoms that have an important functional impact on the patient's daily life.

Currently, 4 controlled CBT studies[22, 28, 30, 32] allow the cognitive behavioral treatment of ADHD to be classified in the category of empirical evidence Ib (see Table 1). These investigations have common therapeutic elements, such as the inclusion of psychoeducation sessions, a problem solving focus, cognitive strategies to improve attention, impulsivity management and cognitive restructuring.[38-40] In the review by Safren and Knouse,[10] it is hypothesized that repeated skill practice and reinforcement of coping strategies with core ADHD symptoms may be the active ingredient that makes CBT effective for treating psychological ADHD in adults. Similarly, in the review of Weiss et al.,[21] it is concluded that brief psychological treatment interventions with a structured format and based on learning skills are effective in the treatment of ADHD in adults.

However, there have been no controlled studies of dialectical behavior therapy (DBT) applied to ADHD or comparisons of traditional CBT and DBT.[21] In previous reviews,[10] DBT is grouped with CBT as the same type of psychological treatment without differentiating them. However, dialectical behavior therapy includes modules different from CBT. Comparative research on CBT and DBT will allow us to discern which aspects of ADHD improve with each type of psychological treatment and investigate the most effective treatment based on ADHD subtype. Along the same lines, previous reviews[10, 20, 21] conclude by pointing out the need for individualized treatment based on the predominant ADHD symptoms presented by the patient.

On the other hand, data from studies indicate that metacognitive therapy is more effective in improving attention problems, but there are no data that allow us to claim an improvement in hyperactivity or comorbid symptoms. Regarding cognitive rehabilitation,[26, 27] studies show a reduction in ADHD symptoms, but not comorbid anxiety and depression symptoms. However, the contents of cognitive rehabilitation sessions[26, 27] have more in common with classic cognitive behavioral therapy than the neuropsychological rehabilitation studied by the group of Virta et al.[32]

Much of the research was conducted in therapy groups, with no study comparing individual psychological treatment with group treatment.[21] Similarly, no controlled studies are currently available on family and couple approaches under the systemic model, although patients with ADHD have significant interpersonal difficulties.[41, 42] Motivational techniques also have received less attention in the psychological treatment of ADHD in adults.[40] Future research could benefit from more motivational work because patients with ADHD show a tendency to act in relation to immediate reinforcement,[43, 44] and attention is mediated by motivation.[45, 46]

The introduction of these approaches in future studies would make it possible to more clearly investigate the differential aspects of psychological treatments. Such studies would contribute to improving analysis of the "active ingredients"[20] that make a specific psychological treatment effective for ADHD in adults.

For this purpose, methodologically rigorous research is required, including a control group, randomized patient assignment, outcome evaluators independent from the study, psychological treatments according to manual and the use of rating scales that allow changes in the different subtypes of ADHD symptoms (inattention or hyperactivity-impulsivity) to be identified.[47] In the review by Weiss et al.,[21] another recommendation for future investigations is to evaluate patient satisfaction and the perceived utility of psychological treatment, as in the study of Phillipsen et al.[35]

The results of this review should be viewed with caution because it is not a quantitative systematic review. Nevertheless, the results indicate that, given the number of positive studies, sample size, inclusion of control groups and correct methodology, cognitive behavioral therapy appears to be the most effective approach to the treatment of ADHD symptoms in adults, as well as the comorbid symptoms of anxiety and depression that tend to be present in these patients.

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