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Cognitive-behavioral therapy for chronic psychosis

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Cognitive-behavioral therapy (CBT) has been used in recent years as an intervention for chronic psychoses, generally as a complement to the pharmacological treatment. This fact has motivated controlled studies that analyze the efficiency of this type of interventions. That is why this bibliographical review has aimed to analyze the most relevant studies up-to-date. Those works having a controlled and random design, that assured the requirements of reliability and validity, were included.

The studies show encouraging results, because they support the efficiency of CBT as a measurement of treatment. Nevertheless, more investigations that support this information are still required.

Key words:
Cognitive-behavioral therapy. Chronic psychosis. Schizophrenia. Residual symptoms.

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Terapia cognitivo-conductual en las psicosis crónicas

En los últimos años, la terapia cognitivo-conductual (TCC) ha comenzado a utilizarse como una intervención en las psicosis crónicas, generalmente como complemento al tratamiento farmacológico. Este hecho ha motivado la realización de estudios controlados que analizan la eficacia de este tipo de intervenciones. Así, esta revisión bibliográfica tuvo como objetivo analizar aquellos estudios más relevantes hasta la fecha. Se incluyeron aquellos trabajos con un diseño controlado y aleatorio, y que garantizaban los requisitos de fiabilidad y validez.

Los estudios muestran resultados esperanzadores, en cuanto que avalan la eficacia de la TCC como medida de tratamiento. Sin embargo, todavía se hace necesario un mayor número de investigaciones que avalen estos datos.

Palabras clave:
Terapia cognitivo-conductual. Psicosis crónica. Esquizofrenia. Síntomas residuales.

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INTRODUCTION

Both the positive and negative psychotic phenomena have traditionally been considered to be categorically different from the normal experiences and often inherent to chronic psychosis and schizophrenia- Thus, they never responded to rational arguments nor were they subsidiary to any psychological treatment. Two situations reinforced this idea in the second half of the XX century: *a)* the inefficacy of the psychodynamic approaches that existed up to that time and *b)* the appearance of psychodrugs as practically the first and only possible treatment for psychoses, with demonstrated efficacy in a large number of patients. Although psychopharmacology was a revolution within mental diseases, it has been seen over time that there many symptoms in diseases such as schizophrenia that are very resistant to the existing psychopharmacological treatments known up to now. However, psychodrugs have also made it possible for patients who were previously considered as «untreatable» to be subsidiary to certain psychosocial interventions. Until a few years ago, said interventions in chronic psychoses were fundamentally limited to supportive therapy, family therapy and within a more behavioral perspective, training in social skills. However, in the last few years, cognitive-behavior techniques have been introduced to treat chronic psychoses, either as techniques that are specifically cognitive-behavioral or forming a part of other more integrated therapies. Different factors lend to the interest in this subject:

- Evidence of the success of cognitive-behavioral therapy (CBT) in other clinical disorders, such as depression or anxiety disorders.
- Greater interest in the field of cognitive psychology about the psychotic phenomena, with findings that many patients develop their own strategies to reduce the frequency and severity of their symptoms.
- Growing evidence of the influence of socio-environmental factors during the psychosis and the development of vulnerability-stress models to explain these relationships.
- Knowledge that a wide range of persons with psychosis who are under treatment with neuroleptics continue ex-

periencing difficulties related with the psychotic symptoms.

- Growing recognition that drug and psychological treatments are not competitive or incompatible but rather that they are often complementary approaches for the treatment of psychiatric problems, including psychosis.

Applying cognitive-behavioral therapy does not imply a single technique but rather the use of several methods oriented towards the patient's individual needs and circumstances. Approaches to psychiatric problem from the cognitive-behavioral perspective generally use strategies based on learning principles and on the assumption that changes in the beliefs of the persons on their experiences may substantially alter their levels of malaise and consequently their symptoms.

This study entails a bibliographic review of all those controlled studies published up to now that evaluate the effect of CBT on the different symptoms of chronic psychosis.

INTERVENTION ON PERSISTENT PSYCHOTIC SYMPTOMS

Many of the patients with chronic psychoses, fundamentally schizophrenia and schizoaffective disorders, suffer permanent negative and positive symptoms that are resistant to medication. This creates significant anxiety and malaise and significant difficulties in their interpersonal relationships. Studies on CBT performed up to now in this type of patient have been aimed at intervening on the positive persistent symptoms, delusions and hallucination and on other secondary symptoms such as depression and anxiety. The characteristics of the controlled studies performed up to date and included in this review are shown in table 1. The studies excluded from this review and the exclusion criteria are shown in table 2.

In the first open and randomized study[1] on CBT in this type of patient made in 1993, two different types of cognitive-behavioral approaches were compared: promoting coping strategies versus problem solving. A total of 27 schizophrenic patients randomly received one treatment or another for 5 weeks (2 weekly 1-hour sessions). The purpose of the coping strategies was to reduce the psychotic symptoms and negative emotions, identifying the environmental factors maintaining them by cognitive interventions (cognitive distraction and self-instructions), behavioral interventions (increase of social activities, reality tests) and reducing physiological arousal with relaxation techniques and respiratory exercises. The aim of problem solving was to improve functioning through training problem solving skills in general. The outcome was a significant change in the number and severity of the psychotic symptoms, particularly delusions, for both conditions of treatment at the end of the therapy. There were changes in the treatment severity with the coping techniques when the measurements before treatment were compared with those made immediately after and at 6 months. When the criterion for significant clinical improvement was established at a 50% reduction of the positive psychotic symptoms, there was some evidence, although with minimum significance, of greater change in the coping group than in the problem solving one. There are important limitations to this study since the initial levels of the symptoms in the coping group were greater, the post-treatment evaluations were made by persons who knew the treatment conditions and a longer term evaluation was lacking.

The same author[2] performed a more intensive CBT than that previously used in another study. This combined training in coping techniques with problem solving and relapse prevention. The inclusion criteria were patients diagnosed of schizophrenia, schizoaffective disorder or delusional disorder and with persistent psychotic symptoms. A total of 87 patients were randomized into three groups. One group received CBT plus routine treatment (medication and out-patient supervision). A second group received supportive therapy plus routine treatment and the third group only received routine treatment. CBT had three basic components, encouraging coping strategies, training in problem solving and relapse prevention strategies. There were 6 one-hour sessions for each program plus two maintenance sessions, held twice a week for 10 weeks, according to the treatment program[3]. The supportive therapy was based on the development of a good empathic relationship, strengthening the therapeutic relationship and unconditional support to the patient, with an identical format to that of the CBT regarding number and time of sessions. A total of 72 patients completed the treatment and were evaluated three months after the first evaluation. When the same criterion of clinical improvement was used as in the previous study (50% reduction of positive symptoms), the CBT group patients significantly improved (11 out of 33) versus those of the supportive therapy (4 out of 26) and those of the routine treatment (3 out of 28).

When this same cohort of patients was evaluated 12 months after completing the treatment[4], the differences in improvements using the decrease of 50% of the positive symptoms were not as extensive or significant. Then, we performed a comparison with a more conservative measurement, that is, reduction of 20% of the positive symptoms regarding the baseline. In this comparison, there was a significant difference between the CBT group and the supportive therapy group versus the routine treatment group. Regarding relapses and rehospitalization of the patients, there were no differences among the three treatment groups.

Kuipers group[5] compared a group in which CBT was applied for 9 months with a control group who received routine treatment (case management and medication). Sixty patients were randomized into the two groups. The CBT used, described by Fowler[6] and Kuipers[7], was designed to achieve the following objectives: reduce the malaise derived

Table 1 Characteristics of the articles included in this review

Study	Sample	Treatment groups	Duration	Measurements	Evaluations	Results	Randomized	Blind evaluator
Tarrier et al. (1993)[1]	27 schizophrenic patients	Coping strategies vs. problem solving	5 weeks 2 weekly sessions of one hour	BPRS SFS	Baseline Post-treatment 6 months of follow-up	Improvement of psychotic symptoms in both groups	Yes	No
Tarrier et al. (1998, 1999)[2,4]	87 schizophrenic, schizoaffective or delusional patients and with persistent psychotic symptoms	CBT + RT ST + RT RT	2 weekly sessions of one hour for 10 weeks	PSE BPRS SANS Days of hospitalization	Baseline Post-treatment 12 months of follow-up	CBT>ST>RT in reduction of symptoms and severity	Yes	Yes
Kuipers et al. (1997,1998)[5,9]	60 residual psychotic patients with at least one positive symptom	CBT RT	2 weekly sessions of one hour for 10 weeks	BPRS BDI SFS MADS BAI	Baseline Post-treatment 18 months of follow-up	CBT>RT in positive symptoms	Yes	No
Sensky et al. (2000)[10]	90 schizophrenic patients refractory to conventional antipsychotic medication	CBT BF	19 sessions during nine months	CPRS MADS SANS	Baseline Post-treatment 9 months of follow-up	CBT>BF in follow-up at 9 months	Yes	Yes
Durham et al. (2003)[16]	66 schizophrenic, schizoaffective and delusional patients, stabilized with antipsychotics for at least 6 months.	CBT ST RT	A maximum of 20-1/2 hour sessions during 9 months	PANSS PSYRATS GAS Clinical Global Improvement	Baseline Post-treatment 3 months of follow-up	CBT>ST > RT at 3 months of follow-up in psychotic symptoms	Yes	Yes
Rector et al. (2003)[22]	50 schizophrenic or schizoaffective patients with persistent positive and negative symptoms	CBT + ERT ERT	20 sessions	PANSS BDI	Baseline Post-treatment 6 months of follow-up	CBT=ERT Improvement of psychotic and depressive symptoms in both groups CBT>ERT in negative symptoms in follow-up	Yes	Yes
Granholm et al. (2005)[24]	76 out-patients with chronic schizophrenia or schizoaffective disorders, with ages from 42 to 74 years	RT RT + SST cognitive behavioral	1 two-hour weekly session during 6 months	Independent Living Skills Survey UCSD PANSS Insight Cognitive Scale Comprehensive Module Scale	Baseline Middle of treatment (3 months) Post-treatment (6 months)	SST>RT in the frequency of social activities, in cognitive insight and in management of specific kills	Yes	Yes
Valmaggia et al. (2005)[33]	72 hospitalized schizophrenic patients resistant to drug treatment	CBT ST	16 sessions during 22 weeks	PANSS PSYRATS	Baseline Post-treatment 6 months of follow-up	CBT>ST in some variables in the post-treatment CBT=ST in the follow-up	Yes	Yes
Wykes et al. (2005)[34]	85 schizophrenic patients with persistent auditory hallucinations	CBT + RT RT	7 sessions during 10 weeks	SBS PSYRATS Self-esteem scale of Rosenberg MUPS	Baseline Post-treatment 9 months of follow-up	CBT>RT in social functioning in the follow-up, no differences being found in other variables	Yes	Yes

CBT: cognitive-behavioral therapy; ST: supportive therapy; RT: routine treatment; BF: befriending; ERT: enhanced routine treatment; SST: social skills training; BPRS: Brief Psychiatric Rating Scale; SFS: Social Functioning Scale; PSE: Present State Examination; SANS: Scale for the Assessment of Negative Symptoms; BDI: Beck Depression Inventory; MADS: Montgomery-asberg Depression Scale; CPRS: Comprehensive Psychopathological Rating Scale; PANS: Positive and Negative Syndrome Scale; PSYRATS: Asychotic Symptom Rating Scale; GAS: Global Assessment Scale; SBS: Social Behaviour Schedule; MUPS: Mental Health Research Institute Unusual Perceptions Schedule.

Table 2 Characteristics of the studies excluded in this review

Study	Authors	Year	Objective	Exlusion criteria
Cognitive-behavioural techniques for general psychiatrists in the management of patients with psychoses	Turkington et al.[15]	2000	Compare CBT with Supportive therapy in the reduction of psychotic symptoms in refractory patients	Reduced number of patients Heterogeneity of the sample Short average of treatment
Cognitive behavioural therapy motivational intervention for schizophrenia and substance misuse	Haddock et al.[40]	2003	Investigate symptoms, substance abuse, functioning and costs in health in patients with dual disorder and their caregivers	Small number of N Limited generalization to other populations Little control of rare variables
The cognitive–behavioural treatment of low self-esteem in psychotic patient: A pilot study	Hall et al.[41]	2003	Compare efficacy of CBT in addition to RT versus RT alone for low psychotic patients	Heterogeneous and small sample Limited generalization of results self-esteem in chronic Pilot study
Cognitive behavioural group treatment for social anxiety in schizophrenia	Kingsep et al.[42]	2003	Reduce social anxiety and general psychopathology and increase quality of life in schizophrenia with CBT	Pilot study No controlled random test Small size of N
Cognitive therapy for command hallucinations: randomised controlled trial	Trower et al.[43]	2004	Test the efficacy of CBT in imperative hallucinations	Pilot study
Cognitive therapy for persistent psychosis in schizophrenia: a case-controlled clinical trial	Temple et al.[44]	2005	Determine efficacy of CBT versus RT in a population of drug persistent patients	Small size of N No random assignment Lack of blind evaluators
A pilot study of functional cognitive behavioural therapy for schizophrenia	Cather et al.[45]	2005	Examine efficacy of functional CBT compared with a manualized psychoeducation program in residual psychotic	Pilot study Small size of N Low sensitivity of the symptoms measurements of social functioning

CBT: Cognitive-behavioral therapy; RT: Routine treatment.

from the psychotic experiences, reduce the associated emotional disorders such as depression, anxiety and hopelessness and modify dysfunctional schemata and promote active participation of the individual in the regulation of his or her risks of relapse and social incapacities. The therapeutic strategies used can be summarized as follows:

- Improvement in coping strategies and development as well as practice of new strategies: programmed activities, relaxation and social skills.
- Development of a collaboration model with the client: using a «therapeutic alliance» in order to discuss the nature of the psychotic symptoms and their effects in their lives.
- Modification of the delusional beliefs and hallucinations: rational discussion and presentation of possible alternatives, together with reality tests, were used. The first beliefs to be discussed with those having a lower grade of conviction. Regarding hallucinations, above all, the meaning attributed to the voices was examined.
- Modification of dysfunctional schemata: based on Beck's therapy, negative and dysfunctional visions of the patients on themselves, such as «being worthless» or «being a bad person» were identified.
- Management of the social incompetence and relapses: the skill of the patients to identify the precipitating factors that worsened their psychotic symptoms and the possibilities of management such as increasing the medication, seeking help or cognitive distraction techniques were discussed.

The CBT group was significantly better than the control in relationship to the evolution of the BPRS scores[8]. A more detailed view indicates how the items that changed the most in relationship with the control group were suspiciousness (ideas of reference and persecution), unusual thought content (delusional ideas) and hallucinations. The delusional belief in relationship to control, malaise from the delusions and frequency of the hallucinations also decreased more in the CBT group. Thus, improvement was observed in symptoms such as delusions and hallucinations, although not in depression levels. However, the study has important limitations: it is not a blind study, although an attempt was made to maintain the independence of the

evaluators; the selection of the alternative therapy of the CBT may be seen as problematic since it attempted to compare it with routine therapy. It is not known if aspects of the CBT were more or less effective, or the optimum number of sessions, with important differences in regards to time dedicated between the different patients.

In the follow-up of these patients after 18 months[9] the CBT group patients maintained a 29% reduction of their symptoms according to the BPRS versus 2% in the control group. This demonstrates significant differences in certain aspects of the psychotic symptoms such as malaise caused by delusions and frequency of the hallucinations. Improvement in the CBT group was also seen in other aspects, such as delusional beliefs and concern and malaise and intensity of the hallucinations, although it was not significant. However, the CBT was not very effective in other areas, such as that of improving depressive symptoms or improving the patient's self-esteem. Furthermore, adding CBT to the usual treatment is not more costly considering the cost-effectiveness results.

In order to solve methodological problems of the previous trials and in general the treatment, a study was designed[10] to compare CBT with a non-specific supportive intervention called «befriending» (BF) to reduce the symptoms among schizophrenic patients with psychotic experiences refractory to conventional antipsychotic medication. The evaluation was made using a comprehensive psychopathological rating scale (CPRS)[11], Montgomery-Asberg Depression Scale[12] and the Scale for the Assessment of Negative Symptoms (SANS)[13]. Evaluation was made before the onset of treatment, after the 9 months of the treatment and then nine months later. The evaluators were independent and did not know which groups the patients evaluated belonged to. CBT was conducted following the techniques described by the authors[14], following different stages, beginning by establishing a close therapeutic relationship, studying the precipitating factors of the psychotic symptoms and treating the associated symptoms such as anxiety and depression. Specific techniques were used for the approach of the positive symptoms: those used for auditory hallucinations were: critical analysis on their origin and nature, use of diaries to record the voices, reattribution of their causes and generation of coping strategies. Those used for delusion ideas were peripheral questioning, without directly confronting the patient by questioning his or her beliefs, reality tests and working with the emotions associated to the delusion. Befriending focused on the non-directive and empathic relationship, focusing on hobbies, sports and common events of the patients, dedicating similar time as used in CBT. In all, 90 patients were randomized into the two groups. At the end of the treatment, the two groups obtained a significant improvement in all the categories evaluated, without differences between them. However, after 9 months of follow-up, the CBT group showed a significant improvement in regards to the BF group. This indicates that the CBT group maintained and even improved their results while the BF worsened in many aspects after completing the therapy. Given that the negative symptoms are particularly treatment-resistant, the improvement produced in them is clinically significant. The study has high clinical interest due to its randomized and blind design, to its use of a specific and reproducible treatment manual and because the CBT group was compared with another adequate intervention and with the same therapeutic contact.

The same group of authors[15] has published another comparative study between CBT and BF therapy. However due to the reduced number of patients (12 CBT, 6 BF), to the heterogeneity of the sample (both acute and chronic patients) and to the short treatment average (a mean of three sessions per patients), we believe that the results cannot be considered significant under any circumstances.

Durham[16] conducted one of the first studies performed as part of the routine clinical practice. This study compared the effects of the CBT versus supportive therapy and routine treatment using a random controlled test with blinded evaluators. The CBT used was an intervention based on Tarrier[3] and Kingdon[17] manuals. The essential elements were: initial emphasis on commitment, establishment of a therapeutic alliance, functional analysis of the key symptoms, making a list of problems, development of standardized reasons for the experiences of the psychotic patients, examination and improvement of the coping strategies, acquiring of additional coping strategies for hallucinations and delusions and management of affective symptoms using training in relaxation, training in personal efficacy and problem solving. Supportive Therapy was developed using a psychodynamically-oriented work frame. The essential elements of the therapy were: establishment of a safe and supportive setting, opportunity of description of the patient's life regarding his or her disease and description and work of transference to the analyst and to others. The evaluation scales of PANSS[18], PYSRATS[19], GAS[20] and Clinical Global Improvement[21] were used. The sample was made up of 66 patients diagnosed of schizophrenia, schizoaffective disorder and delusional disorder, stabilized with antipsychotics for at least 6 months. Patients with primary diagnosis of substance or drug abuse, organic brain damage or violent patients were excluded. The results only showed modest improvement in the CBT condition, with a 25% reduction of the symptoms at three months of follow-up. In this evaluation period, CBT led to a clinically significant improvement of the psychotic psychopathology in general and in the delusional ideation, while supportive therapy only led to clinically significant improvements in delusional ideation. Even though this study had a series of conditions that helped to achieve methodological rigor, such as the use of blinded evaluators and standardized measurements, control procedures of non-specific effects of the psychotherapy and 3 months of baseline to assure the presence of the symptoms, it also had several limitations. Among these limitations were the high number of drop-outs at baseline, variable medication regimes between and within the treat-

ment conditions and the fact that the CBT therapists had more experience than the supportive therapy ones.

Another preliminary study in the same year[22] conducted a random controlled test with evaluators blinded to the treatment condition in a sample of 50 patients diagnosed of schizophrenia or schizoaffective disorder who experienced persistent positive and negative symptoms. This study compared the efficacy of adding CBT to enhanced routine treatment (ERT) versus routine treatment alone. CBT was made up of three phases. The first phase consisted in evaluation, contract and development of a problem list. In the second phase of the therapy, the patients were introduced into the cognitive model to facilitate training in cognitive-behavioral coping strategies. Finally, in the third phase, a psychoeducation program and specific techniques were used to reduce positive and negative symptoms. On the other part, the ERT includes psychiatric and drug treatment and follow-up and case management by a social worker, nurse or occupational therapist.

The evaluations were made in the pretreatment, post-treatment (6 months from the onset of the therapy) and in the follow-up (12 months after the onset of therapy). The evaluation measurements used were PANSS and Beck Depression Inventory (BDI)[23].

Regarding the results, both types of therapies significantly improved the positive and negative symptoms and the general psychopathology, although no statistically significant differences between CBT and ERT were found in the post-treatment. In the follow-up, improvement was maintained in the positive symptoms and general psychopathology, However, the latter was no longer statistically significant. In regards to the negative symptoms, the improvement in the CBT group remained, but this did not occur in the ERT group that not only did not improve but also worsened until reaching a statistically significant difference between the groups.

On the other hand, in regards to depression, there was a decrease in depressive symptoms in both groups, however there were no statistically significant differences between them in the post-treatment and in the follow-up.

A novel study to examine a psychosocial intervention designed for the needs of only elderly patients with psychotic disorders was conducted by Granholm[24]. A random, controlled test with blinded evaluators was made on a sample of 76 out-patients with chronic schizophrenia or schizoaffective disorder, whose ages ranged from 42 to 74 years. In said study, a group with routine treatment was compared with a group with routine treatment plus training in cognitive-behavioral social skills. In the routine treatment group, the patients continued with any treatment they were receiving. CBT was performed using a group format, based on manuals developed by the same authors[25-27]. Tasks were prescribed in this treatment for the home and emphasis was placed on training in social skills, although help to compensate for common cognitive damage was added both in schizophrenia and in normal aging. Furthermore, relevant components of the CBT were modified: roll-playing situations, coping in problem solving and challenge of beliefs about aging.

Both were conducted in two different sites, the investigator's site or therapeutic community, although this variable was controlled through a random stratified procedure. The evaluations were carried out at baseline, at half of the treatment (3 months) and at the end of the treatment (6 months).

The main measure was on social functioning measured with the Independent Living Skills Survey[28] and the UCSD Performance-based Skills Assessment[29]. Secondary measurements were the positive and negative symptoms measured with the PANSS and the depressive ones measured with Hamilton's Depression Scale[30]. Cognitive insight was also evaluated with the Beck Cognitive Insight Scale[31] and management of specific skills with the Comprehensive Module Test of mastery of specific skills[32].

A significant improvement was found in regards to the routine care group in the frequency of social activities, in cognitive insight and in management of specific skills. It should be mentioned that these effects were achieved in the middle of the treatment and continued to exist at the end of it. That is why it would be of interest to investigate if such duration is sufficient to achieve benefits and/or maintain them. On the other hand, no significant effects were found in the performance of daily life activities, in the symptoms or in the site where the treatment was conducted.

The principal limitations of this study are its moderately small sample and lack of control on the non-specific factors of psychotherapy.

The objective of another randomized controlled and blind study conducted in the same year by Valmaggia[33] was to investigate the effects of CBT in hospitalized schizophrenic patients with drug-resistant psychotic symptoms (delusions and hallucinations for at least 3 months) versus a supportive orientation. A sample of 72 patients diagnosed of schizophrenia who had residual delusions or auditory hallucinations experiences for at least 3 months was evaluated.

The CBT was divided into 3 phases. The first one consisted of a contract phase to facilitate the development of a collaborating relationship between patient and therapist and the establishment of common objectives. The individualized case was formulated in the second phase in order to establish a link between thoughts, emotions and behavior. Furthermore, specific techniques were used to reduce anxiety or anguish symptoms. The third and final phase is a consolidation phase in which attention is given to the relapse prevention strategies.

The supportive therapy followed a conventional protocol: the therapist showed an unconditional acceptance, warmth,

genuineness and empathy and the following basic skills were applied: active listening, reflection, empathy and recapitulation.

Evaluation measurements were conducted with the PANSS and PSYRATS at 22 weeks and 6 months of finishing the therapy.

In the baseline, significant differences were found in the factor «emotional characteristics» of the PSYRATS auditory hallucinations subscale. In the post-treatment, no significant differences were found between both groups for positive symptoms. However, greater efficacy of the CBT was found in the PSYRATS auditory hallucination subscale in the factors «physical characteristics» and «cognitive interpretation» but not in the factor «emotional characteristics.» On the other hand, no significant effect was found in the PSYRATS subscale of delusions. No significant differences were found in the follow-up in any of the variables measured.

Among the limitations of this study is the fact that its sample size is small. Consequently it lacks statistical power, thus lacking significant results in the follow-up.

In another randomized, controlled and blind study conducted by Wykes[34], it was evaluated if the group CBT could produce beneficial effects on the hallucinations in schizophrenic patients with persistent auditory hallucinations. The sample selected of 85 patients was assigned to 2 treatment conditions: CBT group (CBT plus routine treatment) and control group (routine treatment alone), in independent blocks of 12 participants to assure assignment to the CBT group at regular intervals.

The CBT group followed a therapy based on a manual by the same authors[35, 36] for 7 sessions, each one with a specific objective. The sessions were: contract and agreement to inform about hallucinations; examination of psychosis models; examination of beliefs on the hallucinations; development of effective coping strategies; improvement of self-esteem; development of a complex model of coping with the voices and follow-up session.

The evaluation measures were performed at baseline, at 10 weeks (post-treatment) and at 36 weeks (follow-up). Principal measurements were: social functioning, measured with the Social Behaviour Schedule (SBS)[37] and the experience of hallucinations, measured with the hallucination subscales of the PSYRATS. Secondary measurements were evaluation of Self-esteem with the Rosenberg subscales[38] and of effective coping strategies with the Mental Health Research Institute Unusual Perceptions Schedule (MUPS)[39].

A significant improvement was found in the follow-up in social functioning in the groups that received CBT, but not in the post-treatment. No evidence was found that using group CBT was effective for the reduction of their auditory hallucinations. In addition, no significant differences were found between the CBT group and the control one in self-esteem or in effective coping strategies, although a descriptive advantage of the CBT was found.

Among the limitations of this study, it is found that although many evaluators were blind to the treatment conditions, there was no formal test to guarantee it.

CONCLUSIONS

Fortunately, in the recent years in our country, the offer of socio-health care resources has increased for patients with chronic psychoses, fundamentally schizophrenic ones. Day hospitals, rehabilitation units, middle stay centers, are places where the patients are not confined, of if they are confined, it is in a semi-open way. This way of approach the patient differs from the classical out-patient visits, in which a schizophrenic patient who may be compensated, but continue to have active symptoms, is seen by his or her psychiatrist once every two or three months for a 15 to 20 minute visit. This time is generally used to discuss if the patient is adequately following the treatment and its possible side effects. However, little time is left to go deeper into the psychopathological examination and even less time to be able to approach the presence of the symptoms. There is also an increasingly greater demand by the professionals of the day centers and rehabilitation units to approach the psychopathology of the patients, the persistent psychotic symptoms, cognitive deterioration or negative symptoms. In this type of center, better adherence of the patients to the drug treatments is generally achieved due to the better accessibility or because they take the medications there and due to the insistence of the professionals on the need for drug treatment to maintain the stability. This is generally a very valuable therapeutic achievement as it implies avoiding relapses and thus so many re-admissions and care resources. However, we know that there are still limitations existing regarding the current antipsychotic drugs and that symptoms frequent persist even in patients who adequately follow their treatments.

For the psychotherapy approaches to patients with chronic psychosis, increasingly demanded by the professionals, the families and the patients themselves, the existence of scientifically supported studies that show the validity of the interventions and whose proposed intervention programs can be easily reproduced are becoming increasingly necessary. The clinical trials on CBT performed up to date, although very few if they are compared, for example, with those made with psychodrugs in the same groups of patients, show us that this type of interventions is effective when they are conducted and are an adequate complement to drug interventions. Improvement continues to be observed in the follow-up studies[4,9]. However, it is likely that there is a loss of effect over time and thus it would not be in vain to suggest that the same as the fact that drug treatments should be generally long-term, CBT should also be done continuously in certain planes.

CBT, as we stated at the beginning of this article, implies the use of several methods: from the development of an empathic model fundamental to treat the patient; CBT techniques used in the anxiety-depression models such as improvements in coping strategies, problem solving, development of scheduled activities, social skills training, relaxation techniques to approach anxious symptoms, modifications of dysfunctional schemes, more specific techniques for psychotic symptoms such as modification of delusional beliefs and hallucinations, by rational discussion, reality tests and management of relapses and identification of the precipitating factors that exacerbate psychotic symptoms. The professionals dedicated to these tasks should thus be skilled in the management of these techniques and also experienced in the treatment of psychotic patients.

It is possible that the patients included in the clinical trials may not have the same profile as those observed in our daily clinical practice. This also occurs in the clinical trials of any drug. Thus, we would have the difficult cases with worse social and familial support, in which any intervention, either drug or psychotherapy, is more complicated and the cases of comorbidity with other psychiatric diseases or substance abuse. However, as in all psychotic patients, response to the drug is often idiosyncratic and the dose should always be individualized, the psychotherapy techniques, in this case CBT, should also be shaped to each patient.

REFERENCES

1. Tarrier N, Beckett R, Harwood S, Baker A, Yusupoff L, Ugarteburu I. A trial of two cognitive-behavioural methods of treating drug-resistant psychotic symptoms in schizophrenic patients, I: outcome. Br J Psychiatry 1993;162:524-32.
2. Tarrier N, Yusupoff L, Kinney C, McCarthy E, Gledhill A, Haddock G, et al. Randomized controlled trial of intensive cognitive behaviour therapy for patients with chronic schizophrenia. BMJ 1998;317:303-7.
3. Tarrier N. Psychological Treatment of Positive Schizophrenic Symptoms. In: Kavanagh D, ed. Schizophrenia: an Overview and Practical Handbook. London: Chapman and Hall;1992.
4. Tarrier N, Wittkowski A, Kinney C, McCarthy E, Morris J, Humphreys L. The durability of the effects of cognitive-behaviour therapy in the treatment of chronic schizophrenia: Twelve-month follow-up. Br J Psychiatry 1999;174:500-4.
5. Kuipers E, Garety P, Fowler D, Dunn G, Bebbington P, Freeman D, et al. London-East Anglia randomised controlled trial of cognitive-behavioural therapy for psychosis: I. Effects of the treatment phase. Br J Psychiatry 1997;171:319-27.
6. Garety P, Fowler D, Kuipers E. Cognitive-behavioural therapy for medication-resistant symptoms. Schizophr Bull 2000;26(1):73-86.
7. Kuipers E, Garety P, Fowler D. An Outcome Study of Cognitive-Behavioural Treatment for Psychosis. In: Haddock G, Slade P, eds. Cognitive-Behavioural Interventions with Psychotic Diseases. London: Rouledge; 1996.
8. Ventura J, Nuechterlein KH, Subotnik KL, Gutkind D, Gilbert EA. Symptom dimensions in recent-onset schizophrenia and mania: a principal components analysis of the 24-item Brief Psychiatric Rating Scale. Psychiatry Res 2000;97:129-35.
9. Kuipers E, Fowler D, Garety P, Chisholm D, Freeman D, Dunn G, et al. London-East Anglia randomised controlled trial of cognitive-behavioural therapy for psychosis: III. Follow-up and economic evaluation at 18 months. Br J Psychiatry 1998;173,61-8.
10. Sensky T, Turkington D, Kingdon D, Scott JL, Scott J, Siddle R, et al. A randomized controlled trial of cognitive-behavioural therapy for persistent symptoms in schizophrenia resistant to medication. Arch Gen Psychiatry 2000;57:165-72.
11. Asberg M, Montgomery S.A, Perris C, Schalling D, Sedvall G. A comprehensive psychopathological rating scale. Acta Psychiatr Scand Suppl 1978;271:5-27.
12. Montgomery SA, Asberg M. A new depression scale designed to be sensitive to change. Br J Psychiatry 1979;134:382-9.
13. Andreasen NC. Scale for the Assessment of Negative Symptoms (SANS). Br J Psychiatry Suppl 1989;155 (7):53-8.
14. Kingdon D, Turkington D. Cognitive-Behavioural Therapy of Schizophrenia. Hillsdale, NJ: Lawrence An Erlbaum Associates; 1994.
15. Turkington D, Kingdon D. Cognitive-behavioural techniques for general psychiatrists in the management of patients with psychoses. Br J Psychiatry 2000;177:101-6.
16. Durham RC, Guthrie M, Morton RV, Reid DA, Treliving LR, Fowler D, et al. Tayside-Fife clinical trial of cognitive-behavioural therapy for medicating-resistant psychotic symptoms. Results to 3-months follow-up. Br J Psychiatry 2003;182:303-11.
17. Kingdon D, Turkington D. Cognitive-Behavioural Therapy of Schizophrenia. New York: Guilford Publications; 1994.
18. Kay S, Fiszbein A, Opler L. The Positive and Negative Syndrome Scale (PANSS). Schizophr Bull 1987;13:261-73.
19. Haddock G, McCarron J, Tarrier N, Faragher EB. Scales to measure dimensions of hallucinations and delusions: the psychotic symptom rating scales (PSYRATS). Psychol Med 1999;29:879-89.
20. Endicott J, Spitzer R, Fleiss J, Cohen J. Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. Arch Gen Psychiatry 1976;33:766-71.
21. Guy W. Assessment Manual for Psychopharmacology. Washington, DC: US Government Printing Office; 1976.
22. Rector NA, Seeman MV, Segal ZV. Cognitive therapy for schizophrenia: a preliminary randomized controlled trial. Schizophr Res 2003;63:1-11.
23. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. Arch Gen Psychiatry 1961; 4:561-71.
24. Granholm E, McQuaid JR, McClure FS, Auslander LA, Perivoliotis D, Pedrelli P et al. A randomized, controlled trial of cognitive behavioural social skills training for middle-age and older outpatients with chronic schizophrenia. Amer J Psychiatry 2005; 162(3):520-9.
25. Granholm E, McQuaid JR, Auslander LA, McClure FS. Group cognitive behavioural social skills training for older outpatients with chronic schizophrenia. J Cogn Psychothe Intern Quarter 2004;18:265-79.
26. Gramholm E, McQuaid JR, McClure FS, Pedrelli P, Jeste DW. A randomised controlled pilot study of cognitive behavioural so-

cial skills training for older patients with schizophrenia. Schizophr Res 2002;53:167-9.
27. McQuaid JR, Granholm E, McClure FS, Roepke S, Pedrelli P, Patterson TL, et al. Development of an integrated cognitive behavioural and social skills training for older patients with schizophrenia. J Psychother Pract Res 2000;9:149-56.
28. Wallace CJ, Liberman RP, Tauber R, Wallace J. The Independent Living Skills Survey: a comprehensive measure of the community functioning of severely and persistently mentally ill individuals. Schizophr Bull 2000;26:631-58.
29. Patterson TL, Goldman S, McKibbin CL, Hughs T, Jeste D. UCSD Performance-based skills assessment: development of a new measure of everyday functioning for severely mentally ill adults. Schizophr Bull 2001;27:235-45.
30. Hamilton M. A Rating Scale for Depression. J Neurol, Neurosurg Psychiatry 1960;23:56-62.
31. Beck AT, Baruch E, Balter JM, Steer RA, Warman DM. A new instrument for measuring insight: the Beck Cognitive Insight Scale. Schizophr Res 2004;68:319-29.
32. Liberman RP. Psychosocial treatments for schizophrenia. Psychiatry 1994;57:104-14.
33. Valmaggia LR, Van Der Gaag M, Terrier N, Pijnenborg M, Sloof CJ. Cognitive-behavioural therapy for refractory psychotic symptoms of schizophrenia resistant to atypical antipsychotic medication. Br J Psychiatry 2005;186:324-30.
34. Wykes T, Hayward P, Thomas N, Green N, Surguladze S, Fannon D et al. What are the effects of group cognitive behaviour therapy for voices? A randomised control trial. Schizophr Res 2005; 77(2-3):201-10.
35. Wykes T, Parr A, Landau S. Group treatment of auditory hallucinations: exploratory study of effectiveness. Br J Psychiatry 1999;175:180-5.
36. Wykes T. Psychological treatment for voices in psychosis. Cognit Neuropsychiatry 2004;9:25-41.
37. Wykes T, Sturt E. The measurement of social behaviour in psychiatric patients: an assessment of the reliability and validity of the SBS schedule. Br J Psychiatry 1986;148:1-11.
38. Rosenberg M, Society and the Adolescent Self Image. Princeton, NJ: Princeton University Press, 1965.
39. Carter D, McKinnon A, Howard S, Zeegers T, Copolov DL. The development and reliability of the Mental Health Research Institute Unusual Perceptions Schedule (MUPS): an instrument to record auditory hallucinatory experience. Schizophr Res 1995; 16:157-65.
40. Haddock G, Barrowclough C, Tarrier N, Moring J, O'Brien R, Schofield N et al. Cognitive behavioural therapy and motivational intervention for schizophrenia and substance misuse. Br J Psychiatric 2003;183:418-26.
41. Hall P, Tarrier N. The cognitive behavioural treatment of low self-esteem in psychotic patients: A pilot study. Behav Res Ther 2003; 41: 317-392.
42. Kingsep P, Nathan P, Castle D. Cognitive behavioural group treatment for social anxiety for schizophrenia. Schizophr Res 2003;63:121-9.
43. Trower P, Birchwood M, Meaden A, Byrne S, Nelson A, Ross K. Cognitive therapy for command hallucinations: randomised controlled trial. Br J Psychiatry 2004;184:312-20.
44. Temple S, Ho BC. Cognitive therapy for persistent psychosis in schizophrenia: A case controlled clinical trial. Schizophr Res 2005;74:195-99.
45. Cather C, Penn D, Otto MW, Yovel I, Mueser K, Goff D. A pilot study of functional cognitive behavioural therapy for schizophrenia. Schizophr Res 2005;74:201-9.