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Evaluation of Cognitive - Analytic Therapy (CAT) Outcome: A 4-8 Year Follow Up

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ABSTRACT – The authors study the outcome of a sample (121 patients) diagnosed as Anxiety Disorders, Depressive Disorders, comorbid in some cases with Personality Disorders, after follow a cognitive-analytic therapy, the CAT. The follow-up was of a period of 4-8 years, and the evaluation was by MMPI and other questionnaire.

Beneficial changes in the personality structure of the patients contribute to the non-recurrence of the symptoms in such cases that the authors presents in this paper.

Introduction

Psychotherapy in general is an effective therapeutic approach which, as it has been demonstrated, has a modestly positive effect on patients (Bergin & Lambert 1978, Lambert 1983). In a psychotherapy outcome review Smith *et al.* (1980) stated that the average person receiving psychotherapy was better off than 85% of the patients who were not.

During the last decades a number of brief-psychotherapeutic techniques have been developed and became increasingly popular and numerous clinical reports have indicated their effectiveness, at least in specific groups of patients (Kaplan & Sadock 1994).

Cognitive Analytic Therapy (CAT) is a brief psychotherapy, developed by Anthony Ryle (Ryle 1982, 1990, 1995) in the late 70's which integrates in theory and practice concepts and methods from cognitive, psychoanalytic, behavioural and other approaches. CAT is delivered in a 16-session format in the majority of cases. During the first three

to five sessions material is collected from patient history, patient therapist interaction, self-monitoring of moods and symptoms and from other specific questionnaires. The most important of them is the psychotherapy file, which helps the patients to recognize possible repeated patterns of acting and thinking which prevent them from living satisfactorily. Common repeated patterns i.e. Problem Procedures (PPs) are listed in the psychotherapy file under three categories: 1) Traps 2) Dilemmas and 3) Snags. All the above collected material and understanding lead in the fourth to sixth session to Reformulation, written and diagrammatic, which is the "scaffolding" of the therapy.

Reformulation highlights what it is about the patient's ways of thinking, acting, feeling and evaluating which leads them to persist in harmful and ineffective ways. In addition, specific targets i.e. Target Problem Procedures (TPPs) are defined. The remaining sessions are devoted to the recognition of these TPPs through diary keeping and other forms of self-monitoring and through detecting them as they are presented in the narratives brought in to the therapy and as they are enacted in the patient therapist relationship; once recognition is achieved, the heightened and more accurate self reflection, coupled with the experience of an explicit, non-collusive relationship with the therapist, allows the development of new procedures. In the sixteenth session patient and therapist exchange "Good-bye letters" which represent their evaluation of the therapeutic work. Experience with a wide range of patients suggests that CAT is a safe psychotherapeutic intervention for a broad spectrum of patients. Only psychotic and patients with substance abuse or dependence are excluded (Ryle 1982, 1995).

The effectiveness of a psychotherapeutic technique is shown by outcome assessment. There are many studies indicating the effectiveness of the various brief psychotherapies (Mohl 1994) but very few dealing with the outcome of CAT, mainly investigating specific groups of patients (Bosley *et al.* 1992, Cowmedow 1994).

Furthermore, these studies made only one follow up assessment usually near the end of the therapy i.e. 3 months after therapy termination. The timing of the follow up is a very important issue especially in brief psychotherapies (Kolotkin & Johnson 1983). It has been suggested that repeated assessments are the best way to measure the changes achieved by a psychotherapeutic intervention (Kolotkin & Johnson 1983, Elliot 1995). There are very few studies investigating a psychotherapeutic outcome several years after the end of the therapy. In a previous study, we found that CAT is an effective brief psychotherapy for patients with various psychiatric diagnoses (Garyfallos *et al.* 1998).

The present study aims to investigate the outcome of CAT in a sample of patients with various psychological problems and with repeated follow up assessments both near the end as well as at a time distant from the end of the therapy.

Method

The study was undertaken in the Community Mental Health Centre of the Northwestern district of Thessaloniki. The centre has a standard intake procedure including diagnostic interview and completion of various psychometric tests followed by a disposition conference where diagnosis is established and the treatment modality is decided. The diagnoses are made according to

DSM-III-R, IV criteria. All the scientific personnel of the centre who are involved in diagnostic interviews are trained and experienced in the use of this diagnostic system. One of the most frequently used psychometric tests is the Minnesota Multiphasic Personality Inventory (MMPI) which is completed at intake by those patients who had at least a ninth grade education. The test was adapted for use in Greece (Manos 1985).

The patients who were assigned CAT at intake were also assessed again two months, one year and, finally, at least four years after the end of the therapy. The third follow up took place four to eight years after the patients had terminated their therapy. The follow up included: 1) An interview with a CAT therapist who was their own therapist at the first and second follow up, while the third interview was with another therapist from the centre. During this interview the therapist and the patient also completed the Post-therapy Questionnaire (Ryle & Ansari 1988, personal communication) specifically designed for CAT post therapy evaluation The questions which have been used in the present study refer to: a) whether the patient could remember what problems first brought him/her to therapy, b) what the new understanding was that he/she had gained during therapy i.e. reformulation, c) whether this understanding had been helpful. These questions are scored from 0 = no correspondence with problems / reformulation or unhelpful to 3 = full correspondence or very helpful d) whether they found some basic aspects of CAT helpful or not, such as psychotherapy file, self monitoring, diary, rating sheets, relationship with the therapist, the fact that therapy was time limited. These questions are scored from 1 = very unhelpful to 5 = very helpful, e) whether they believed that they needed further therapy or not. 2) Then, they were asked to complete the MMPI as at the intake.

The group of patients who had dropped out of treatment and that of patients who had completed it but failed to attend the 2-month follow up were studied and compared to those who had completed therapy and attended both the 2-month and the 4-8 year follow up regarding demographic characteristics, psychiatric diagnoses and pretherapy MMPI scores. Similarly, patients who attended both the 2-month and the 4-8 year follow up were compared to those who came to the 2-month follow up but did not come to the 4-8 year follow up regarding pre-therapy MMPI scores and MMPI and Post-therapy Questionnaire scores on the 2-month follow up. Therapy was carried out by 9 different therapists: 3 psychiatrists, 2 trainee psychiatrists, 2 psychologists and 2 social workers. Two of the above were CAT therapists 3 trainees in CAT and the remaining 4 were trainees who were treating some patients and would be CAT therapists later on.

Results

A total sample of 121 patients was assigned to CAT from June 1989 to June 1993. Eleven of them (9%) did not turn up for the first session and 16 (14,5%) dropped out. Eighty out of 94 patients (85%) came to the 2-month follow up. Sixteen patients asked for further therapy and 11 received it. Nine of them had more CAT sessions while the remaining 2 were referred for other treatment i.e. supportive psychotherapy.

Three of the patients who asked for further therapy but did not receive it came to the next follow up 1-year later and stated that they were well, and 2 of them did not come.

From the 92 patients expected at the 1-year follow up, 59 (64%) appeared and 33 (36%)

did not. None of the attenders asked for further therapy. At the third follow up after 4-8 years, 47 (52%) of the 91 patients turned up (one patient had died in the meantime). Out of the 44 patients who had not come to the third follow up, 12 (13%) refused to attend claiming various reasons i.e. they had not been helped by the therapy, they were well and did not like to discuss "old, forgotten problems" again or they canceled the follow up session. The remaining 32 (35%) patients could not be found at the registered addresses and phone numbers. From the 47 patients who attended the 4-8 year follow-up, 4 asked for further therapy. Two of them started a new cycle of CAT sessions, while the remaining two asked exclusively for pharmacotherapy. It is worthwhile to mention that these two patients had received pharmacotherapy from psychiatrists in private practice after the end of their CAT sessions.

Table I depicts the demographic characteristics of the 47 patients who came to the 4-8 year follow up and table II shows their DSM-III-R psychiatric diagnoses. The majority are women, married and with a high school education. The most frequent axis I diagnoses were anxiety disorders (mainly panic disorder) and depressive disorders (mainly major depression of mild or moderate severity and dysthymia). Many patients had more than one axis I diagnosis while the majority of them (57%) had a diagnosis of a personality disorder (axis II) as a single or additional diagnosis. None of the patients received medication during therapy while those who were under medication before starting treatment were asked to stop it in the first 2-3 sessions.

The patients who did not complete therapy (N = 16) and those who failed to attend the 2-month follow up (N = 14) did not differ significantly ($p > 0.05$) regarding demographic characteristics and psychiatric diagnoses from the 47 patients who completed therapy and came both to the first and third follow up. Table III includes the MMPI T scores of those patients who had the appropriate level of education, completed the test and their tests were valid at the time of the intake and at the 2-month follow up. The MMPI scales were all the clinical scales, the sum of the clinical scales, the validity scales L and K and some of the research scales such as A (Anxiety), Dy (Dependency), Mas (Manifest Anxiety), Soc (Social Maladjustment), Mor (Poor Moral), Hos (Hostility),

Table I
Demographic characteristics of the sample (N = 47)

	N	%
Sex		
Male	11	24
Female	36	76
Age (years)	32.2 ± 9.4	
Education		
< High School	14	30
High School	19	40
University	14	30
Marital Status		
Single	16	34
Married	26	55
Divorced	5	11

Table II
DSM - III - R psychiatric diagnoses of the sample (N = 47)*

	N	%
Mood disorders	24	51
Major depression	13	28
Dysthymia	12	26
Depression NOS	2	4
Anxiety disorders	26	55
Panic ± AGF	21	45
GAD	4	8
Social phobia	4	8
Simple phobia	5	11
Obsessive - compulsive	2	4
Somatoform disorders	6	13
Adjustment disorders	3	6
Codes V	6	13
Axis I (total)	44	94
Personality disorders (Axis II)	27	57
Histrionic	8	17
Borderline	10	21
Narcissistic	1	2
Dependent	6	13
Avoidant	5	11
Obsessive Compulsive	4	8
Passive Aggressive	2	4
Self - defeating	2	4

(*) Some patients received multiple diagnoses on both axes.

Table III
MMPI T scores before CAT and at the time of the 2-month follow up (N = 38)

	Intake	2-month
Hs***	65.7 ± 11.2	56.8 ± 12.2
D***	65.3 ± 10.8	51.1 ± 12.7
Hy**	63.4± 11.0	57.2 ± 12.4
Pd*	57.4 ± 9.2	53.2 ± 9.1
Mf	46.7 ± 11.8	46.5 ± 10.4
Pa***	59.3 ± 10.3	51.0 ± 10.1
Pt***	64.9 ± 8.7	52.0 ± 11.9
Sc***	59.3 ± 10.6	50.3 ± 11.1
Ma	50.7 ± 8.1	49.7 ± 7.8
Si***	55.2 ± 12.0	47.3 ± 10.0
Sum***	587.4 ±79.0	515.1 ± 77.2
A***	61.8 ± 9.9	51.7 ± 12.0
Es***	41.3 ± 8.9	51.5 ± 10.6
Dy***	60.4 ± 9.7	51.5 ± 11.7
Mas***	63.0 ± 9.8	52.7 ± 11.9
Soc***	59.0 ± 11.8	51.7 ± 9.1
Mor***	62.1 ± 9.9	52.0 ± 11.3
Hos**	54.4 ± 10.5	48.5 ± 12.0
D1***	65.1 ± 10.9	50.3 ± 11.2
Dep***	61.9 ± 10.5	50.5 ± 10.3
K**	50.9 ± 9.7	56.3 ± 11.2
L	52.2 ± 10.7	52.2 ± 9.0

(*) $p < 0.05$, (**) $p < 0.01$, (***) $p < 0.001$. Paired t-test. df: 37.

D1 (Subjective Depression), Dep (Depression) and Es (Ego Strength), the only one from the clinical and research scales where a higher score means a better psychological state. The patients manifested a statistically significant improvement in all but two (Mf, Ma) clinical and research scales. Tables IV and V present the MMPI T scores of the patients who attended the 1-year and the 4-8 year follow up respectively compared to their scores at the intake time. There was a significant improvement on the same scales as in the previous table. The patients who dropped out of treatments (N = 13) as well those who did not attend the 2-month follow up (N = 11) did not differ significantly from those who completed therapy and came to at least the first and third follow up (N = 38) regarding the pre-therapy MMPI scores ($p > 0.05$). Table VI includes the comparisons of the MMPI T scores between the three follow-ups. As is shown, at the last two follow ups the patients achieved better scores on the majority of the MMPI scales, which reached statistical significance on two of them i.e. Hs and Hy, compared to their scores at the 2-month follow-up. In addition, at the 4-8 year follow up the patients manifested better scores on Dy scale compared to their score both on the 2-month and the 1-year follow up. The patients who attended the 2-month follow up but failed to attend the 4-g year follow up, whether they refused (N = 8) or they were not found (N = 20), did not differ significantly from those who attended both follow ups (N = 38), regarding their MMPI scores at the 2-month follow up (table VII), table VIII depicts the scores on the questions of the Post-therapy Questionnaire at the 2-month, 1 year and 4-8 year follow ups. As shown, the patients at the last two follow ups achieved better scores on the

Table IV
MMPI T scores before CAT and at the time of the 1-year follow up (N = 38)

	Intake	1-year
Hs**	65.7 ± 11.2	54.0 ± 11.8
D**	65.3 ± 10.8	49.4 ± 12 9
Hy**	63.4 ± 11.0	53.6 ± 12.9
Pd*	57.4 ± 9.2	52.3 ± 9.7
Mf	46.7 ± 11.8	45.8 ± 10.9
Pa**	59.3 ± 10.3	50.6 ± 10.5
Pt**	64.9 ± 8.7	52.3 ± 12.7
Sc**	59.3 ± 10.6	50.6 ± 11.5
Ma	50.7 ± 8.1	49.3 ± 8.4
Si**	55.2 ± 12.0	46.4 ± 11.0
Sum**	587.4 ± 79.0	504.2 ± 80.3
A**	61.8 ± 9.9	51.6 ± 11.9
Es**	41.5 ± 8.9	52.5 ± 11.0
Dy	60.4 ± 9.7	51.1 ± 10.3
Mas**	63.0 ± 9.8	52.0 ± 12.4
Soc**	59.0 ± 11.8	51.1 ± 9.1
Mor**	62.1 ± 9.9	51.4 ± 11.6
Hos*	54.4 ± 10.5	49.0 ± 10.7
D1**	65.1 ± 10.9	49.5 ± 11.1
Dep**	61.9 ± 10.5	49.4 ± 10.4
K*	50.9 ± 9.7	56.4 ± 11.8
L	52.2 ± 10.7	51.7 ± 11.9

(*) $p < 0.01$, (**) $p < 0.001$. Paired t-test, df: 37.

Table V
MMPI T scores before CAT and at the time of the 4-8 year follow up (N = 38)

	Intake	4-8 years
Hs**	65.7 ± 11.2	54.3 ± 13.7
D**	65.3 ± 10.8	49.6 ± 12.4
Hy**	63.4 ± 11.0	53.7 ± 11.8
Pd*	57.4 ± 9.2	52.4 ± 9.1
Mf	46.7 ± 11.8	46.0 ± 10.9
Pa**	59.3 ± 10.3	50.1 ± 11.7
Pt**	64.9 ± 8.7	51.7 ± 13.5
Sc**	59.3 ± 10.6	50.3 ± 12.2
Ma	50.9 ± 8.1	50.0 ± 9.1
i**	55.2 ± 12.0	46.2 ± 12.5
Sum**	587.4 ± 79.0	504.1 ± 83.0
A**	61.8 ± 9.9	50.2 ± 11.8
Es**	41.5 ± 8.9	52.3 ± 12.0
Dy**	60.4 ± 9.7	48.4 ± 11.5
Mas**	63.0 ± 9.8	50.9 ± 12.6
Soc**	59.0 ± 11.8	50.7 ± 9.6
Mor**	62.1 ± 9.9	51.0 ± 11.2
Hos*	54.4 ± 10.5	48.8 ± 10.9
D1**	65.1 ± 10.9	49.3 ± 13.1
Dep**	61.9 ± 10.5	49.4 ± 11.1
K**	50.9 ± 9.7	56.5 ± 12.2
L	52.2 ± 10.7	53.0 ± 11.8

(*) $p < 0.01$, (**) $p < 0.001$. Paired t-test, df: 37.

Table VI
MMPI T scores at the 2-month, 1-year and 4-8 year follow up (N = 38)

	2-month	1-year	4-8 years
Hs	56.8 ± 12.2[a,b]	54.0 ± 11.8	54.3 ± 13.7
D	51.1 ± 12.7	49.4 ± 12.9	49.6 ± 12.4
Hy	57.2 ± 12.4[a,b]	53.6 ± 12.9	53.7 ± 11.8
Pd	53.2 ± 9.1	52.3 ± 9.7	52.4 ± 9.1
Mf	46.5 ± 10.4	45.8 ± 10.9	46.0 ± 10.9
Pa	51.0 ± 10.1	50.6 ± 10.5	50.1 ± 11.7
Pt	52.0 ± 11.9	52.3 ± 12.7	51.7 ± 13.5
Sc	50.3 ± 11.1	50.6 ± 11.5	50.3 ± 12.2
Ma	49.9 ± 7.8	49.3 ± 8.4	50.0 ± 9.1
Si	47.3 ± 10.0	46.4 ± 11.0	46.2 ± 12.5
Sum	515.5 ± 77.0	504.2 ± 80.3	504.1 ± 83.0
A	51.7 ± 12.0	51.6 ± 11.9	50.2 ± 11.8
Es	51.5 ± 10.6	52.5 ± 11.0	52.3 ± 12.0
Dy	51.5 ± 11.7[b]	51.1 ± 10.3[c]	48.4 ± 11.5
Mas	52.7 ± 11.9	52.0 ± 12.4	50.9 ± 12.6
Soc	51.7 ± 9.1	51.1 ± 9.1	50.7 ± 9.6
Mor	52.0 ± 11.3	51.4 ± 11.6	51.0 ± 11.2
Hos	48.5 ± 12.0	49.0 ± 10.7	48.8 ± 10.9
Dl	50.3 ± 11.2	49.5 ± 11.1	49.3 ± 13.1
Dep	50.5 ± 10.3	49.4 ± 10.4	49.4 ± 11.1
K	56.3 ± 11.2	56.4 ± 11.8	56.5 ± 12.2
L	52.2 ± 9.0	51.7 ± 11.9	53.0 ± 11.8

(a) $p < .05$ higher score than at the 1-year follow up, (b) $p < .05$ higher score than at the 4-8 year follow up. (c) $p < .05$ higher score than at the 4-8 year follow up. Statistical comparison between groups in pairs with Paired t-test. df: 37.

majority of the questions, which reached statistical significance on some of them, compared to their scores at the 2-month follow up. There were no significant differences on any question of the Post-therapy Questionnaire at the 2-month follow up between the patients (N = 44) who attended the 2 month follow up but failed to attend the 4-8 year follow up and those who attended both follow ups (N = 47).

Table VII
MMPI I scores at the time of 2-month follow up of the attenders and nonattenders at the 4-8 year follow up

	Attenders (N = 38)	Non Attenders (N = 28)	
		Refused (N = 8)	Not found (N = 20)
Hs	56.8 ± 12.2	59.1 ± 7.5	57.5 ± 13.2
D	51.1 ± 12.7	53.2 ± 10.0	54.0 ± 13.7
Hy	57.2 ± 12.4	56.5 ± 7.5	58.9 ± 11.5
Pd	53.2 ± 9.1	51.0 ± 7.7	54.0 ± 10.4
Mf	46.5 ± 10.4	45.7 ± 12.0	46.1 ± 12.3
Pa	51.0 ± 10.1	51.5 ± 7.1	49.1 ± 10.4
Pt	52.0 ± 11.9	55.1 ± 7.4	52.7 ± 11.2
Sc	50.3 ± 11.1	50.8 ± 8.2	50.7 ± 10.8
Ma	49.7 ± 7.8	46.8 ± 6.3	48.1 ± 7.9
Si	47.3 ± 10.0	50.4 ± 8.1	47.9 ± 9.4
Sum	515.1 ± 77.2	520.1 ± 67.3	519.0 ± 80.4
A	51.7 ± 12.0	55.0 ± 8.9	55.2 ± 10.5
Es	51.5 ± 10.6	48.7 ± 7.8	49.7 ± 10.7
Dy	51.5 ± 11.7	53.5 ± 6.7	53.5 ± 10.5
Mas	52.7 ± 11.9	57.0 ± 8.5	56.2 ± 10.4
Soc	51.7 ± 9.1	56.5 ± 8.2	54.3 ± 10.8
Mor	52.0 ± 11.3	51.4 ± 8.4	52.8 ± 11.0
Hos	48.5 ± 12.0	48.1 ± 6.6	50.5 ± 10.0
D1	50.3 ± 11.2	54.2 ± 8.1	53.2 ± 11.3
Dep	50.5 ± 10.3	54.6 ± 7.2	52.4 ± 12.1
K	56.3 ± 11.2	56.2 ± 6.4	56.4 ± 9.3
L	52.2 ± 9.0	51.5 ± 10.7	50.8 ± 7.4

Statistical comparison between groups in pairs with two-tailed Student t-test. None of the differences reached statistical significance.

Table VIII
Post-therapy Questionnaire scores at the 2-month, 1-year and 4-8 year follow up (N = 47)

	2-month	1-year	4-8 years
1. Presented problem	2.8 ± 0.5	2.8 ± 0.5	2.8 ± 0.5
2. Correspondance with reformulation	2.4 ± 0.7	2.3 ± 0.8	2.3 ± 0.9
3. Helpful or not*	2.5 ± 0.5	2.8 ± 0.4	2.8 ± 0.6
4. Helpful or not			
a. Psychotherapy file	3.9 ± 1.0	4.0 ± 1.0	4.0 ± 0.9
b. Self monitoring*	4.0 ± 0.9	4.3 ± 1.0	4.4 ± 0.9
c. Diary	3.5 ± 1.1	3.5 ± 1.0	3.6 ± 1.1
d. Ratings	3.9 ± 0.9	4.0 ± 1.0	3.9 ± 1.0
e. Relationship with therapist	4.5 ± 0.6	4.7 ± 0.6	4.6 ± 0.7
f. Time limited*	3.8 ± 0.8	4.1 ± 0.9	4.2 ± 0.8

Statistical comparison with Wilcoxon test for pair differences, (*) $p < .05$ 2-month - 1-year
(*) $p < .05$ 2-month- 4-8 year. N.S. 1-year - 4-8 year.

Discussion

The results of the present study not only replicate the results of our previous study (Garyfallos *et al.* 1998) but also take them further, indicating that in a public health service patients with a variety of psychiatric diagnoses show a considerable improvement after receiving Cognitive Analytic Therapy and, more important, they sustain the gains of the therapy for a long time i.e. 4-8 years. Furthermore, the effectiveness of CAT in patients with different psychological problems supports the initial view that CAT is an appropriate and sate intervention and that the only exclusion criteria are the existence of psychotic disorders and substance abuse or dependence (Ryle 1982, 1990, 1995).

As far as psychiatric diagnosis is concerned the sample under study is representative of the centre clientele (Garyfallos *et al.* 1991). Other studies also report that the majority of patients in an outpatient clinic have an anxiety and/or a depressive disorder and a high frequency of personality disorders (Alnaes & Torgersen 1988). The proportion of patients who completed therapy (85,5%) and the proportion of those who attended the follow-ups (85% at the 2-month, 64% at the 1-year and 52% at the 4-8 year) are considerably high. It is noticeable that there are no CAT outcome studies designed to have repeated and long-term follow-ups. In addition, few outcome studies of brief psychotherapy in general investigate the patients many years after the end of therapy, something that the present study did. The proportion of follow up attendance for the present study is higher compared to two other studies, one on in Finland, on a very small sample of patients (Leinman 1991) and another in England (Dunn *et al.* 1997). In the latter, 82% from a sample of patients with diagnoses similar to the present study psychiatric diagnoses, completed therapy. However, at the only follow up that was made at a non-precise time, between 3-6 months after therapy termination, only 52% of the completers turned up. This proportion is identical to that achieved by the present study despite the fact that in our case there was a much longer interval between follow up time and the end of the therapy. It has been supported that it is difficult to have high percentages of attendance for follow-ups at 4 months and beyond (Aveline 1995). All the above indicate that the proportion of patients who came to the follow ups for the present study are more than satisfactory. It is worthwhile to mention that in the follow up at 4-8 years only 13% of the patients refused to participate directly or indirectly, while 35% of them were not found. The last percentage was surprisingly high, as we expected that the movements of the population would be smaller given the sociocultural data of the centre catchments area. The option of repeated follow ups at different time intervals after the end of therapy is suggested for psychotherapy outcome studies and especially for brief psychotherapeutic interventions (Kolotkin & Johnson 1983, Elliot 1995). The shorter follow up periods, i.e 2 months, may reflect more accurately the changes that have actually taken place during therapy, while the longer ones may reflect the types of long term change made possible by the earlier gains that took place during brief psychotherapeutic interventions (Kolotkin & Johnson 1983).

The fact that only 14% (11/80) of patients were referred for further treatment suggests a satisfactory impact and the figure is better than that reported (18,5%) for the English study by Dunn *et al.* (1997). Furthermore, it is noticeable that only two patients were referred for other types of psychotherapy, while the rest received more CAT sessions. However, as the decision about offering fur-

ther treatment was made after the 2-month follow up assessment, similarly to the English study by Dunn *et al.* (1997), it is not clear whether the above rate of 14% is completely representative because there were 14 (15%) patients who did not attend the follow up.

As far as the method used for assessing outcome is concerned, the combination of a psychometric test such as the MMPI with post-treatment rating by the patient and therapist using a scale such as the Post-therapy Questionnaire, is considered to be the most appropriate (Beutler & Crago 1983). Regarding the Post-therapy Questionnaire, the fact that it allows the patient to quantify helpful factors of therapy is an excellent approach for the assessment of a therapeutic outcome (Elliot 1995, Sloane *et al.* 1977).

Regarding the use of the MMPI, Bergin and Lambert (1978) pointed out that "no other paper pencil measure of psychopathology based on self report offers anything better to the researcher". Beutler and Crago (1983) reviewing studies assessing psychotherapy outcome found that half of them used some or all of the MMPI dimensions. Although few different opinions also exist (Cartwright 1975), especially regarding the test-retest reliability of many of the MMPI scales (Gleser 1975) the test is clearly the most popular instrument in this field of research (Beutler & Crago 1983). It is supported that scales D (Depression), Pt (Psychasthenia) and Sc (Schizophrenia) from the clinical scales (Garfield *et al.* 1971, Manos & Vassilopoulou 1984) and the sum of the clinical scales (Beutler & Crago 1983, Dahlstrom & Welsh 1960). appear to provide consistent validity as change indices. The same scales, with the addition of scale Hs (Hypochondriasis) showed the most significant improvement in the present study, as well. It has to be pointed out,, that scale Hs had the highest elevation at the intake. That may be partly explained by the fact that the most frequent psychiatric diagnoses were panic disorder, depressive and somatoform disorders, disturbances that in their clinical picture include, as is well known, somatic complaints. It is possible that the finding can also be attributed to cultural factors. The view that Greeks express psychological problems and distress through a "somatic language" has been supported in many studies (Skinner 1965, Pillowski & Spence 1977, Adamopoulou *et al.* 1991, Garyfallos *et al.* 1991). Therefore, one can assume that a successful psychotherapeutic intervention may result in a very significant improvement on scale Hs. The above assumption could be reinforced by the fact that scale Hs was one of the two scales that showed a significant improvement on the 1-year follow up –compared to the 2-month follow up– time when the gains of psychotherapy are consolidated (Patterson *et al.* 1977). Regarding the research scales, the most notable changes appear on the two scales measuring depression (D1 and Dep) and on the two anxiety scales (A and Mas) a finding which is in congruence with other studies (Conte *et al.* 1988). Significant improvement also has been shown on scale Es. This scale is the best index of a positive change after treatment (Graham 1987) and is usually incorporated as a measure into psychotherapy studies (Beutler & Crago 1983). Higher score after therapy means that the individual tends to be better adjusted psychologically and that he/she is more capable to cope with problems and stresses in life (Graham 1987). Scale K of the MMPI is a validity scale measuring defensiveness but, in contrast to the other validity scale L of the test, it measures more subtle and mature defences (Graham 1987). A higher score after psychotherapy –if this score does not exceed 60 for individuals of lower middle class and upper lower class (Graham 1987), as in the present study– is indicative of improvement reflecting better functioning, ego strength and psychological resources (Gra-

ham 1987). It is worthwhile mentioning that the other validity scale (L) did not manifest significant differences between the pre and post-therapy assessments.

The fact that patients achieved better scores on many MMPI scales at the 1-year and the 4-8 year follow up compared to the 2-month follow up shows that not only did they sustain the achieved therapeutic gain, but they improved further. It is noticeable that in the last follow up they had a further significant improvement compared to the 1-year follow up on scale Dy. A better score on that scale means that the individual is more independent, more self-confident and not excessively sensitive to the reaction of others. The results of the MMPI were validated by comparing them to the questions of the Post-therapy Questionnaire, where patients achieved better scores at the last two follow ups as opposed to the 2-month follow up. The above findings support earlier reports that after termination, patients consolidate the gains resulting from brief treatment and they continue to improve and eventually they approach life problems more effectively (Patterson *et al.* 1977, Frank 1974). The highest score in the Post therapy Questionnaire on all three follow ups was on the question "relationship with the therapist", a finding suggesting that this relationship, as in any type of psychotherapy, is the most important factor involved, at least from the patient's point of view. Sloane *et al.* (1977) found that in behaviour therapy patients place much more emphasis on the therapeutic relationship, as a helpful factor for a good outcome, than do their therapists. Finally, the high score on the question investigating how helpful the time limit in therapy had been considered by the patients themselves and especially the score on the last two follow ups, indicates that a brief psychotherapy can be valuable and that the sense of a time limit may reinforce the patients' motivation for change. This is something they appreciate more at the follow ups, mainly at that more distanced from the end of therapy.

The present study did not find any characteristics distinguishing the patients who completed therapy from those who did not, as there were no significant differences between the two groups regarding demographic characteristics, psychiatric diagnoses and pre-therapy MMPI scores. This finding is not congruent with other CAT outcome studies which found that non-completers had higher initial scores on various tests such as BDI (Dunn *et al.* 1997, Brockman *et al.* 1987), GHQ and CCI (Brockman *et al.* 1987) than patients completing therapy. On the contrary, the finding that at the 2-month follow up non-attended did not differ significantly from those who attended, regarding their pre-therapy inventory scores is in line with the results of Dunn *et al.* (1997). The failure to attend follow up could reflect a wish to move on after a difficult time or resentment at an unsuccessful intervention (Dunn *et al.* 1997). The latter explanation is contradicted by the finding of the present study that there were no significant differences between those who came to the first and third follow up at least and those who came to the first but did not come to the third regarding their MMPI and Post-therapy Questionnaire scores at the time of the first follow up i.e. the 2-month. All the above indicate that failure to attend follow up is difficult to predict, as it is related to a wide range of attitudes (Aveline 1995).

The present study has a number of limitations. The most important of them is the absence of a control group, although there is still a long debate on what a appropriate control group consists of: patients on the waiting list, patients who did not follow the treat-

ment or individuals treated with another psychotherapeutic technique (Basham 1986). There are reports concluding that prediction of outcome of psychotherapy is difficult and it is rare to demonstrate associations between pretherapy measures and an outcome strong enough to be of any clinical value (Luborsky *et al.* 1980). A good final result depends on the patient's ability to become involved in a therapeutic relationship and to work productively within the framework preferred by the therapist (Strupp 1980). Major deterrents to the above condition are not only the characteristics of the patient, but also the therapist's personal reactions (Strupp 1980). Furthermore, Auerbach (1983) points out that there is no totally satisfactory procedure for the assessment of a psychotherapeutic outcome as "outcome" is approximately as complex as human life. In addition, Luborsky *et al.* (1975) support that there is little evidence that any school of therapy gets better results than any other. In conclusion, and keeping the above statements in mind, Cognitive Analytic Therapy seems to be an effective brief psychotherapy. It is appropriate not only for selected groups of patients but for patients with a variety of psychological problems and its beneficial effects seem to be sustained for a long-term. It is a reliable therapeutic approach for psychological problems such as depressive and anxiety disorders for which pharmacotherapy is nowadays considered to be a first choice treatment.

The above issue is very important because CAT treats these problems in a short time while simultaneously inflicting beneficial changes to the personality structure of the patients. This probably contributes to the non- recurrence of the symptoms. It must be finally stressed that the use of psychotherapy has the additional benefit of avoiding the side effects and other risks of drug use.

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