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Outcome of cognitive-behavioral therapy for relatives of people with severe mental disorders

Rocío Polo-López, Karmele Salaberria, María Soledad Cruz-Sáez and Enrique Echeburua
University of the Basque Country. UPV/EHU

Abstract

Background: Over the past 20 years, research shows that families of people affected by severe mental illness (schizophrenia, bipolar disorder, and addiction) may suffer emotional distress and lack of self-esteem. **Aims:** In this study, long-term effectiveness of a cognitive-behavioral treatment designed for relatives of people with severe mental illness was evaluated. **Method:** A total of 30 relatives living with a person affected by a severe mental disorder received 10 sessions of tailored cognitive-behavioral therapy. **Results:** The study shows that the treatment was effective for the reduction of depression-anxiety symptoms, as well as for negative emotions and psychological distress. **Conclusions:** This psychological support program has shown to be effective as a treatment for the relatives of people with serious mental health problems both in the posttreatment and in the 12-month follow-up.

Keywords: Cognitive-behavioral therapy, relatives, severe mental disorders.

Resumen

Resultados de la terapia cognitivo-conductual para familiares de personas con trastorno mental severo. **Antecedentes:** en los últimos 20 años, la investigación muestra que los familiares de las personas afectadas por una enfermedad mental grave (esquizofrenia, trastorno bipolar y adicciones) pueden sufrir malestar emocional y falta de autoestima. **Objetivos:** en este estudio se evalúa la eficacia a largo plazo de un tratamiento cognitivo-conductual diseñado para familiares de personas con enfermedad mental grave. **Método**: un total de 30 familiares que viven con una persona afectada por un trastorno mental grave recibió 10 sesiones individuales de terapia cognitivo-conductual. **Resultados:** el tratamiento fue eficaz para la reducción de los síntomas ansioso-depresivos, así como para la disminución de las emociones negativas. **Conclusiones:** este programa de apoyo psicológico ha demostrado ser eficaz como tratamiento para los familiares de las personas con graves problemas de salud mental, tanto en el postratamiento como en el seguimiento de los 12 meses.

Palabras clave: terapia cognitivo-conductual, familiares, trastorno mental severo.

Severe mental disorders are highly prevalent (prevalence rates range from 2 to 7% [schizophrenia, 1%; bipolar disorder, 2%; addictive disorders, 5-7%; severe depression, 4%-6%]), as pointed out in an important cross-national study (Olesen, Gustavsson, Svensson, Wittchen, & Jönsson, 2012). These disorders have a major influence on family dynamics and are characterized by substantial declines in cognition, mood, perception, behavior and judgment (National Institute for Health and Clinical Excellence [NICE], 2009).

Severe mental disorders (schizophrenia and bipolar disorder) and addictive disorders are mental problems that have important implications for people who suffer from them (Polo-López, Echeburúa, Berry, & Salaberria, 2014), but also for the family network surrounding them. Actually, family members very often (in 80% of cases) are the caregivers of these patients, and those who directly suffer from the impact of mental and addictive disorder in the family.

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Corresponding author: Rocío Polo-López
University of the Basque Country
UPV/EHU
San Sebastián (Spain)
e-mail: rpololopez@yahoo.es

Sixty five percent of family caregivers undergo substantial changes in their lives and a significant reduction in their physical or mental health. About 20% of caregivers develop "burnout" or burned caregiver syndrome (Bayés, Arranz, Barbero, & Barreto, 1997; Caqueo et al., 2014). Moreover, up to 40% of caregivers may suffer depressive symptoms or disorders (Palacios-Espinosa & Jiménez-Solanilla, 2008; Gallagher-Thompson et al., 2000) and up to 15% anxiety symptoms (Russo, Vitalino, Brewer, Katon, & Becker, 1995). Specifically, caregivers are affected by increased rates of anxiety, depression, and distress compared to the general population (Kuipers, Onwumere, & Bebbington, 2010).

Therefore, different interventions aimed at finding practical solutions to the problems of daily life and improving communication skills in schizophrenia (Dixon, Adams, & Lucksted, 2000), bipolar disorder (Perlick et al., 2010), and addictions (Patford, 2007, 2009) have been implemented. In these programs, family members learn coping skills to deal with the difficulties associated with living with a person with severe mental disorder and to develop more positive patterns of interaction. However, in these interventions, caregiver emotional distress was not specifically addressed and has barely been investigated, in spite of the fact that therapeutic programs may help relieve the distress of the relatives of the mentally ill.

In a detailed review of controlled trials of interventions reporting outcomes for relatives of people with psychosis between 1980 and 2010 carried out by Lobban et al. (2013), fifty studies compared an intervention to provide support to relatives with a control group in which outcomes for the relatives were reported. But among them, only ten studies provided empirical evidence of the impact of treatment on family members' emotional state.

Generally, most treatments available for mentally disordered patients' relatives have a group format and mainly use psychoeducational approaches (González et al., 2010). Moreover, most of them are focused on reducing the emotion expressed towards the person with mental disorder and not on developing strategies that will help decrease caregivers' burden and emotional stress (Dixon et al., 2011; Gleeson et al., 2011). The results of the Lobban et al. (2013) review suggest that the percentage of studies showing effective outcomes is greater when measuring variables related to family knowledge, beliefs, and functioning (70% of effectiveness) and is relatively lower (21% of effectiveness) when assessing relatives' emotional needs.

Therefore, the goal of this research is not only focused on improving relatives' skills for the improvement of patients' lives, but also on reducing caregivers' psychological and emotional distress. The main aim of this study is to assess the effectiveness of a psychological intervention designed specifically for relatives of people with severe mental disorders and focused on their own wellbeing and emotional needs. The treatment is delivered in the setting of the clinical practice on an individual basis.

For this purpose, the results obtained in the participants across the various stages of treatment and follow-up were analyzed. The clinical efficacy in each participant was also evaluated through the Reliable Change Index (RCI) in order to determine the clinical change from an individual viewpoint.

Method

This is a clinical pilot study with one group and repeated measures distributed throughout pretreatment, posttreatment, and in the 1-, 3-, 6-, and 12-month follow-ups.

Participants

The sample of the study was composed of 30 participants seeking psychological support who responded to a call for volunteers made via the local media. This program was provided at no charge to the participants.

The inclusion criteria were as follows: a) aged 18 years or over; b) living with a person with severe mental illness including psychotic disorders, bipolar disorders, severe depression and addictive disorders, diagnosed by psychiatrist from the public mental health network; c) having no history of severe mental problems; d) not undergoing psychological treatment; and d) providing informed consent.

The sample characteristics are summarized in Table 1. Most participants were female (83.3%), with an average age of 42 years. In most cases, they were married or living with a couple. While 43.3% of the subjects were parents of descendants with mental disorders, 13% were siblings, and 33.3% were sons or daughters.

In most cases, the type of relative's mental disorder was a psychotic disorder (50%), followed by bipolar (16.7%), and addictive disorder (16.7%). Regarding participants, half of them

Table 1
Sociodemographic characteristics, degree of kinship and variables related to the mental disorder

Degree of kinship and mental disorder characteristics	**SAMPLE *N* = 30**	
Degree of kinship	**N**	**%**
Descendants	13	43.3
Mother	9	30
Father	1	3.3
Sibling	4	13.3
Intimate partner	3	10
Type of mental illness		
Psychotic disorder	15	50
Bipolar disorder	5	16.7
Addictions	5	16.7
Depression	3	10
Personality disorders	2	6.6
In treatment (the ill family member)		
Yes	23	76.7
No	7	23.3
Previous treatment (partaker)		
None	15	50
Psychological	6	20
Psychopharmacological	5	16.7
Both	4	13.3
Drug habits of the partaker		
None	10	33.3
Alcohol	10	33.3
Smoking	5	16.7
Smoking+Alcohol	3	10
Smoking+Alcohol+Cannabis	2	6.6
Victim of aggression		
No	20	66.7
Yes	10	33.3
Time spent living	**M**	**SD**
Years of cohabitation	21.5	7.4

Sociodemographic characteristics	**SAMPLE *N* = 30**	
	M	***SD***
Age	41.80	14.6
Gender	**N**	**%**
Women	25	83.3
Men	5	16.7
Marital status		
Married/Couple	16	53.3
Single	8	26.7
Divorced/Separated	5	16.7
Widowed	1	3.3
Education		
University level	19	63.3
First level	5	16.7
Secondary level	6	20
Work		
Working	17	56.7
Unemployed	6	20
Studying	6	20
Studying and working	1	3.3
Monthly income		
More than 1000€	14	46.7
Less than 1000€	15	50
No income	1	3.3

(50%) had not had any previous treatment. In addition, 33.3% of the sample had suffered aggressions by the relative with the mental disorder.

Instruments

A semi-structured interview was designed ad hoc to elicit sociodemographic variables, illness characteristics, and variables related to cohabitation with the mentally ill family member.

The Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1992) is a self-administrated assessment of general psychopathology. It consists of 90 questions that are answered on a 5-point Likert scale, ranging from 0 (*not at all*) to 4 (*very much*). It measures 9 areas of primary symptoms: Somatization (SOM), Obsession-compulsion (OBS), Interpersonal sensitivity (INT), Depression (DEP), Anxiety (ANS), Hostility (HOS), Phobic anxiety (FOB), Paranoid ideation (PAD) and Psychoticism (PSI). It also provides three indexes: Global Severity Index (GSI), Positive Symptom Total (PST) and Positive Symptom Distress Index (PSDI), which reflect the overall severity of the person's symptoms. Test-retest reliability is .70, and alpha coefficient .90. The SCL-90-R has been shown to be sensitive to therapeutic changes and may therefore be used either for single or repeated assessments (Derogatis & Unger, 2010).

The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970*)* consists of 20 items assessing Trait anxiety and 20 items assessing State anxiety; in this study we only used State anxiety items. All items are rated on a 4-point scale ranging from (*almost never*) to (*almost always*). Internal consistency coefficients for the scale ranged from .86 to .95; test-retest reliability coefficients ranged from .65 to .75 over a 2-month interval (Grös, Antony, Simms, & McCabe, 2007).

The Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996*)* is a 21-item self-administered inventory designed to measure the intensity of depressive symptoms in adults and adolescents. Respondents are asked to indicate which statement best describes how they felt during the past two weeks including today. Items are rated on a 4-point (0 to 3) scale, with total scores obtained by summing the ratings for all items. Scores ranging between 0 and 9 are indicative of minimal depression; scores that fall between 10 and 18 are considered to reflect a mild level of depression; scores of 19 to 28 are considered moderate; and a score ranging from 29 to 63 is labeled severe. Test-retest reliability was .75, and the alpha coefficient was .82 (Beck, Steer, & Carbin, 1998).

*The Maladjustment Scale (*Echeburúa, Corral, & Fernández-Montalvo, 2000) is a self-administrated scale. It consists of 6 items that are rated on a Likert scale, ranging from 0 (*not at all*) to 5 (*very much*). The scale reflects the degree to which stressful situations affect different areas of the person's daily life. Total scores range from 0 to 30, with higher scores indicating greater maladjustment. A score higher than 2 on each item denotes maladjustment. The cutoff point of the full scale is therefore 12. The alpha coefficient is .94.

The Stress Coping Questionnaire (SCQ; Sandín & Chorot, 2003) is a self-administrated assessment questionnaire evaluating seven coping styles focused on solving the problem (FSP), negative self-targeting or self-criticism (NST), positive reappraisal (PR), open emotional expression (OEE), avoidance (AVD), seeking social support (SSS), and religion (RLG). It consists of 42 questions that are answered on a 5-point Likert-type scale, ranging from 0 (*never*) to 4 (*almost always*). Each subscale ranges from 0-24 with higher scores on each subscale indicating greater use of that coping style. The alpha coefficient is .85.

The Rosenberg Self Esteem Scale (RSE; Rosenberg, 1965) is a self-administrated scale of 10 items designed to measure self-esteem. The alpha coefficient for the scale is .92. Test-retest reliability over a period of 2 weeks reveals correlations of .85 and .88, indicating excellent stability (Robins, Hendin, & Trzesniewski, 2001). The cutoff point of this instrument is 29 (Ward, 1977).

Treatment

The main objective of the program was to help families understand the relative's mental disorder, providing them with tools to manage their discomfort, strategies to improve the relationship with the ill family member, and effective coping strategies to deal with potentially stressful situations and their emotional disturbances.

The psychological support intervention to caregivers included 9 of the 11 components identified as most effective in a theoretical review conducted by Lobban et al., 2013) (psychoeducation, behavior management problem, generation of realistic expectations, training in problem solving, communication skills, stress management, change of maladaptive beliefs, relapse prevention, and emotional support). Maintaining social networks and vocational rehabilitation are not as relevant for relatives and so were not included.

In addition, we included additional components of potential therapeutic value, such as the report of the family history, which takes into account the chronic impact of living with a member diagnosed with severe mental disorder. Other therapeutic techniques were included, such as relaxation techniques and diaphragmatic breathing, how to change work-related dysfunctional cognitions, and how to manage negative emotions such as guilt, shame, anger, and sadness. Likewise, increase of self-esteem by identifying strengths and increase of assertiveness were therapeutic targets. The intervention concluded with a session focused on "What I learned from my situation, what I achieved from treatment, and what do I have to do from now on?"

This psychological support intervention also takes into account the components used in programs related to treatment of adjustment disorder and to empowerment programs, enhancing strengths such as acceptance, coping, and learning about the family situation. The

Table 2
Components of the psychological support program for relatives of people with mental disorders

Session	Components
1	Family history and explanation of the impact of familial disease
2	Psychoeducational intervention: Specific disease of relatives
3	Anxiety management training and relaxation techniques
4	Relationship between emotions, thoughts and behaviors Cognitive distortions about guilt, shame and anger
5	Thought management training: Event, automatic thought, discussion and adaptive thinking
6	Sadness management (working with meaningful activities and related thoughts) Increased self-esteem (identifying strengths)
7	Social skills training and communications skills Assertiveness
8	Contingency management of the person with a mental disorder
9	Problem solving Summing-up and closure: relapse prevention
10	What have I learned about my situation?

program also included the use of metaphors, keywords or phrases that help maintain the change, as well as techniques focused on relapse prevention (Botella, Baños, & Guillen, 2008; Benton & Lynch, 2006; Remor, Amorós, & Carrobles, 2010).

The treatment consisted of 10 one-hour weekly individual sessions. The psychological program was supported by a cognitive-behavioral approach, which emphasizes learning ability and teaches people how to cope with stressful life events. It was delivered by the first author of this study. Participants were all provided with workbooks to use during sessions, and between-session homework tasks were assigned. The intervention was tailored to the specific needs of each participant. The program is summarized in table 2.

Procedure

The treatment program was carried out at the Unit of Clinical Psychology of a University between 2010 and 2013. This psychological support program was approved by the University Ethics Committee.

Following informed consent, in which anonymity and confidentiality were emphasized, initial assessments were performed in two sessions. All participants were assessed at pretreatment, at post-treatment (after attending the program), and at 1-, 3-, 6-, and 12-month follow-up. All questionnaires were self-reported.

Data analysis

Data were analyzed using descriptive statistics: means and standard deviations for quantitative variables and frequencies and percentages for qualitative variables. SPSS 20.0 was used to analyze the data.

Given that normality assumption, tested by using the Kolmogorov-Smirnov test, was not met in some variables (Age, SCL Hostility-Phobic Anxiety-Psychoticism, SCQ-Religion, BDI and Maladjustment), non-parametric tests were used.

Regarding comparison between the different assessments, Friedman's test was used. In addition, effect size (Friedman *R*) was calculated to estimate the magnitude of differences with the intervention.

Finally, the reliable change index (RCI) (Jacobson & Truax, 1991) was used to determine clinically significant changes in each participant in the study. This index determines the magnitude of change necessary for a given self-report measure to be considered statistically reliable. Cutoff scores are established for placing participants into one of four categories: recovered (>1.96), improved (1-1.96), unchanged (0.1-1), or deteriorated (<0), depending on the directionality of the RCI and whether the cutoff score was met. When the individual has a change score greater than 1.96, it is assumed that the individual has recovered (McGlinchey, Atkins, & Jacobson, 2002; Ogles, Lunnen, & Bonesteel, 2001).

Table 3
Results of treatment at different assessment time points

Scale	PRE *M (SD)* *N*=30	POST *M (SD)* *N*=29	1 Month *M (SD)* *N*=29	3 Months *M (SD)* *N*=29	6 Months *M (SD)* *N*=29	12 Months *M (SD)* *N*=26
SCL-90-R somatization	1.55 (0.62)	0.28 (0.31)	0.27 (0.58)	0.25 (0.29)	0.18 (0.30)	0.16 (0.25)
Obsession	1.65 (0.82)	0.46 (0.39)	0.31 (0.35)	0.27 (0.30)	0.28 (0.35)	0.30 (0.32)
Interpersonal sensitivity	1.51 (0.92)	0.29 (0.29)	0.21 (0.31)	0.27 (0.36)	0.24 (0.35)	0.19 (0.24)
Depression	2.07 (0.77)	0.42 (0.45)	0.25 (0.27)	0.35 (0.37)	0.33 (0.38)	0.27 (0.29)
Anxiety	1.58 (0.66)	0.30 (0.29)	0.18 (0.28)	0.25 (0.24)	0.24 (0.25)	0.17 (0.18)
Hostility	0.95 (0.67)	0.29 (0.38)	0.15 (0.27)	0.16 (0.23)	0.19 (0.30)	0.12 (0.21)
Phobic anxiety	0.86 (0.62)	0.16 (0.19)	0.07 (0.13)	0.11 (0.15)	0.09 (0.18)	0.05 (0.11)
Paranoid ideation	1.20 (0.76)	0.29 (0.36)	0.18 (0.30)	0.20 (0.27)	0.15 (0.27)	0.11 (0.18)
Psychoticism	0.75 (0.60)	0.10 (0.19)	0.05 (0.14)	0.05 (0.11)	0.05 (0.16)	0.05 (0.07)
SCL-GSI	1.46 (0.48)	0.30 (0.26)	0.18 (0.21)	0.46 (1.45)	0.21 (0.25)	0.22 (0.24)
SCL-PST	52.33 (13.98)	24.03 (17.35)	15.41 (16.05)	18.17 (17.50)	15.97 (15.40)	14.15 (11.46)
SCL-PSDI	2.53 (0.60)	1.01 (0.26)	1.00 (0.46)	1.16 (0.37)	1.08 (0.23)	1.03 (0.27)
BDI (0-63)	21.17 (10.29)	1.79 (3.02)	1.38 (2.55)	1.72 (2.34)	1.34 (2.94)	0.92 (1.38)
STAI -S (0-60)	33.70 (9.84)	10.72 (8.74)	9.14 (8.51)	10.07 (7.57)	9.72 (8.62)	8.08 (6.70)
Maladj. (6-36)	24.47 (5.87)	11.48 (4.44)	9.69 (4.15)	9.55 (3.49)	9.93 (4.27)	8.50 (2.90)
SCQ-FSP (0-24)	13.47 (4.10)	19.66 (3.93)	19.28 (3,34)	19.86 (2.94)	20.24 (2.96)	21.15 (2.61)
SCQ-NST (0-24)	10.57 (4.14)	4.41 (3.58)	4.31 (2.79)	4.21 (3.15)	3.83 (3.24)	3.19 (2.85)
SCQ-PR (0-24)	11.63 (3.30)	17.03 (3.78)	17.93 (3.69)	18.48 (3.70)	18.66 (3.01)	19.42 (2.73)
SCQ-OEE (0-24)	7.83 (2.65)	4.93 (2.54)	4.48 (2.11)	3.97 (2.38)	4.00 (2.08)	4.50 (2.31)
SCQ-AVD (0-24)	10.80 (3.80)	11.90 (4.23)	12.34 (4.97)	12.72 (4.24)	12.00 (4.10)	12.04 (4.16)
SCQ-SSS (0-24)	10.53 (6.07)	13.62 (5.61)	13.17 (6.75)	14.97 (6.84)	14.59 (6.55)	15.12 (5.69)
SCQ-RLG (0-24)	3.23 (3.61)	1.45 (2.58)	1.03 (2.02)	1.21 (2.22)	1.03 (1.84)	1.19 (2.41)
Self-est. (10-40)	27.93 (5.70)	35.79 (3.34)	36.66 (3.38)	36.93 (3.29)	36.52 (3.70)	38.04 (1.84)

Note: SCL-90-R = Symptom Checklist-90-revised; GSI = Global Severity Index; PST = Positive Symptom Total; PSDI = Positive Symptom Distress Index; BDI = Beck Depression Inventory; STAI-S = State Trait Anxiety Inventory; Maladjust = Maladjustment; SCQ = Stress Coping Questionnaire; SCQ FSP = SCQ-Focused on the Solution of the Problem; SCQ NST = SCQ-Negative Self-Targeting; SCQ PR = SCQ-Positive Reappraisal; SCQ OEE = SCQ-Open Emotional Expression; SCQ AVD = SCQ-Avoidance; SCQ SSS = SCQ-Seeking Social Support; SCQ RLG = SCQ-Religion; Self-est = Self-esteem

Results

In Table 3, means and standard deviations of the different variables and at each assessment point (pre-, post-, 1-, 3-, 6-, and 12-month follow-up) are displayed.

Regarding the effectiveness of the psychological support program in the different assessments, the scores showed statistically significant improvements in all subscales of SCL-90-R between pre- and posttreatment with large effect sizes. The improvement continued between the post- and 6-month follow-up in somatization, obsession, paranoid ideation, GSI and PST, with moderate effect sizes, maintaining this improvement up to the 12-

Table 4
Evolution between pre-post. post-6 months and 6-12months assessments

SCALE	χ^2 (df) p	PRE-POST Z (p) *r effect size*	POST-6 MONTHS Z (p) *r effect size*	6-12 MONTHS Z (p) *r effect size*
SCL-90-R somatization	χ^2(3)=54.34 .000	-4.70 (.000) *r*= -.87	-1.93 (.05) *r*= -.26	-0.54 (.58) *r*= -.10
Obsession	χ^2(3)=53.20 .000	-4.60 (.000) *r*= -.85	-2.49 (.01) *r*= -.46	-1.09 (.27) *r*= -.21
Interpersonal sensitivity	χ^2(3)=53.02 .000	-4.70 (.000) *r*= -.87	-1.01 (.30) *r*= -.18	-0.93 (.34) *r*= -.18
Depression	χ^2(3)=49.10 .000	-4.68 (.000) *r*= -.87	-1.11 (.26) *r*= -.20	-0.47 (.63) *r*= -.09
Anxiety	χ^2(3)=53.78 .000	-4.70 (.000) *r*= -.87	-0.95 (.34) *r*= -.17	-1.06 (28) *r*= -.21
Hostility	χ^2(3)= 0.13 .000	-4.19 (.000) *r*= -.77	-1.30 (.19) *r*= -.24	-0.69 (.48) *r*= -.13
Phobic anxiety	χ^2(3)=45.53 .000	-4.46 (.000) *r*= -.83	-1.88 (.06) *r*= -.35	-0.77 (.44) *r*= -.15
Paranoid ideation	χ^2(3)=55.95 .000	-4.62 (.000) *r*= -.86	-2.11 (.03) *r*= -.39	-0.66 (.50) *r*= -.13
Psychoticism	χ^2(3)=55.48 .000	-4.54 (.000) *r*= -.84	-1.83 (.06) *r*= -.34	-1.54 (.12) *r*= -.30
SCL-GSI	χ^2(3)=53.05 .000	-4.70 (.000) *r*= -.87	-2.04 (.04) *r*= -.38	-0.42 (.67) *r*= -.08
SCL-PST	χ^2(3)=53.02 .000	-4.70 (.000) *r*= -.87	-2.90 (.004) *r*= -.54	-0.24 (.08) *r*= -.05
SCLPSDI	χ^2(3)=51.88 .000	-4.70 (.000) *r*= -.87	-0.90 (.36) *r*= -.17	-0.18 (.85) *r*= -.03
BDI (0-63)	χ^2(3)=56.61 .000	-4.70 (.000) *r*= -.87	-1.25 (.21) *r*= -.23	-0.15 (.87) *r*= -.03
STAI -S (0-60)	χ^2(3)=48.79 .000	-4.70 (.000) *r*= -.87	-0.64 (.51) *r*= -.12	-0.89 (.36) *r*= -.17
Maladj. (6-36)	χ^2(3)=54.14 .000	-4.62 (.000) *r*= -.86	-1.51 (.13) *r*= -.28	-1.63 (.10) *r*= -.32
SCQ-FSP (0-24)	χ^2(3)=52.02 .000	-4.54 (.000) *r*= -.84	-1.56 (.11) *r*= -.29	-1.56 (.11) *r*= -.31
SCQ-NST (0-24)	χ^2(3)=43.85 .000	-4.36 (.000) *r*= -.81	-0.72 (.47) *r*= -.13	0.00 (1) *r*= 0
SCQ-PR (0-24)	χ^2(3)=53.86 .000	-4.63 (.000) *r*= -.86	-2.42 (.01) *r*= -.45	-1.25 (.20) *r*= -.24
SCQ-OEE (0-24)	χ^2(3)=35.00 .000	-4.37 (.000) *r*= -.81	-1.64 (.10) *r*= -.30	-1.12 (.26) *r*= -.22
SCQ-AVD (0-24)	χ^2(3)= 1.81 .61	-1.13 (.25) *r*= -.21	-0.33 (.74) *r*= -.06	-0.48 (.62) *r*= -.09
SCQ-SSS (0-24)	χ^2(3)= 10.25 .010	-2.73 (.006) *r*= -.51	-1.10 (.26) *r*= -.20	-0.40 (.68) *r*= -.08
SCQ-RLG (0-24)	χ^2(3)=19.23 .000	-3.40 (.001) *r*= -.63	-1.01 (.31) *r*= -.19	-0.36 (.71) *r*= -.07
Self-est. (10-40)	χ^2(3)= 53.30 .000	-4.35 (.000) *r*= -.87	-0.99 (.32) *r*= -.24	-2.43 (.01) *r*= -.34

NOTE: SCL-90-R = Symptom Checklist-90-revised; GSI = Global Severity Index; PST = Positive Symptom Total; PSDI = Positive Symptom Distress Index; BDI = Beck Depression Inventory; STAI-S = State Trait Anxiety Inventory; Maladjust = Maladjustment; SCQ = Stress Coping Questionnaire; SCQ FSP = SCQ-Focused on the Solution of the Problem; SCQ NST = SCQ- Negative Self-Targeting; SCQ PR = SCQ-Positive Reappraisal; SCQ OEE = SCQ-Open Emotional Expression; SCQ AVD = SCQ-Avoidance; SCQ SSS = SCQ-Seeking Social Support; SCQ RLG = SCQ-Religion; Self-est = Self-esteem

month follow-up. Thus, whereas at the pretreatment assessment, participants' GSI scores were at the 95th percentile of scale scores in the general population, at posttreatment, participants were at the 25th percentile, and at the 6-month-follow-up, they were at the 15th percentile, and this result was maintained up to the 12-month follow-up. This reduction was similar in the other SCL-90-R subscales.

In psychopathological variables (BDI, STAI-S and Maladjustment), improvement was statistically significant with large effect sizes in all measures. Thus, participants reduced their depressive symptoms from mild depression to lack of symptoms; likewise, their anxiety level was reduced from the 85th to the 5th percentile (indicating lack of anxiety), and their levels of maladjustment improved to levels below the cutoff point in posttreatment. Between posttreatment and the 12-month follow-up, the improvement was maintained.

As far as coping strategies are concerned, participants increased strategies more focused on finding solutions more proactively (FSP) and showed a decrease of negative self-targeting (NST), as well as more adaptive reappraisal (PR), and an increase in their social support network (SSS). They also reduced the level of open emotional expression (OEE), as well as the levels of anger and criticism. Lastly, there was evidence of an increase in self-esteem. Almost all measures showed moderate-large effect size (Table 4) between pre- and posttreatment, and the improvement was maintained throughout follow-up.

A clinically significant change between pretreatment and posttreatment is considered when an individual has obtained the category of *Improved* and/or *Recovered* in at least two of the measures evaluated (SCL-90-R GSI, STAI-S, BDI, and self-esteem) and has not obtained any *Deteriorated* category. The improvement achieved at posttreatment has been considered to be maintained when participants do not have two or more *Deteriorated* categories in the last assessment carried out.

Between pretreatment and posttreatment, 82.7% (24 individuals) were classified as *Improved* or completely *Recovered* from their symptoms. In addition, 10.3% (3 participants) obtained a measure of *Deteriorated*, which, however, changed to *Recovered* between the posttreatment measurement and the 12-month follow-up, so the most significant change took place over the follow-up. The remaining 10% (2 individuals) were *Unchanged*, and there was 1 participant with missing data.

Table 5
Clinical significance: Reliable change index

	PRE-POST				POST-12 months			
Subject	**SCL-GSI**	**STAI-S**	**BDI**	**Self-esteem**	**SCLGSI**	**STAI-S**	**BDI**	**Self-esteem**
1	R	I	R	I	U	D	D	U
2	R	I	U	U	U	U	U	U
3	–	–	–	–	–	–	–	–
4	I	D	U	U	D	R	R	U
5	I	I	I	D	U	D	D	R
6	R	R	R	I	–	–	–	–
7	U	R	I	I	–	–	–	–
8	I	U	I	U	U	U	U	U
9	R	R	R	R	U	D	U	I
10	R	U	I	U	U	D	U	U
11	R	R	R	R	U	D	D	U
12	R	R	I	R	R	U	I	U
13	R	R	I	I	D	U	U	I
14	R	R	U	I	D	D	D	U
15	R	R	U	R	U	U	U	U
16	R	I	U	I	I	I	U	R
17	R	R	R	R	D	U	U	U
18	I	U	I	I	U	U	D	U
19	I	I	I	U	U	D	U	I
20	I	U	U	U	D	D	D	U
21	I	U	I	D	I	I	U	R
22	U	U	U	U	R	I	I	U
23	R	U	I	U	I	R	R	U
24	R	I	R	I	–	–	–	–
25	R	I	I	I	U	U	U	U
26	U	I	I	I	I	U	U	I
27	R	R	R	I	D	D	D	D
28	R	U	I	U	U	U	U	U
29	R	R	R	R	U	U	U	U
30	R	R	R	I	U	U	U	I

Recovered (R)>1.96; Improved (I) 1-1.96; Unchanged (U) 0.1-1; Deteriorated (D)<0

Between posttreatment and the 12-month follow-up, 76.9% (20 participants) could be considered as having maintained the improvement, and 23.1% showed a slight *Deterioration* from the change obtained between pre- and posttreatment (Table 5).

Discussion

The results reported in this study about the socio-demographic data from a sample of families caring mentally ill relatives at home show a much higher prevalence of women (83.3%) seeking help than men. This finding may reflect, as in other studies (Kuipers et al., 2010; Goodman & Tully, 2006) that when a family member is ill, the burden of caregiving falls primarily on women, but it could also mean that women are more active in seeking treatment.

The average years of coexistence between caregivers seeking help and relatives with a severe mental disorder in this study is 21.5 years. Therefore, the burden of caregivers is heavy when the relative's disease is chronic. In this study, 23.3% of the cases with severe mental illness had not received any treatment, as shown in other studies (Kohn, Saxena, Levav, & Saraceno, 2004; The Schizophrenia Commission, 2012).

High levels of psychopathology were found in our sample, which is consistent with previous studies (Kuipers et al., 2010; Barrowclough & Tarrier, 1992; Dixon & Lehman, 1995). Thus, considering the cutoff points established for various assessment tools, participants in this study displayed high levels both of overall distress (such as depression and anxiety symptoms) and maladjustment. Regarding personality variables, relatives showed low self-esteem and maladaptive strategies to cope with stress. Thus caregivers' scores in were higher negative self-targeting and lower in positive reappraisal than in the general population (Sandín & Chorot, 2003).

The program tested in this study was clearly associated with a significant reduction of psychopathological symptoms, levels of maladjustment, and maladaptive coping strategies, similar to the study of Rychtarik and McGillicuddy (2006). The program has proven to be useful, and its effectiveness on relatives' emotional response is greater than results of studies reviewed by Lobban et al. (2013), where the percentage of effectiveness was 21% in emotional variables.

Regarding the effect size, the effect of the intervention between the pre- and posttreatment was rather large, and was maintained throughout the follow-up.

As far as clinically significant change is concerned, 82.7% of participants are *recovered or improved* and 17.3% are *not improved* between pre- and posttreatment. Furthermore, in the 12-month follow-up, an additional 5.7% experienced a slight deterioration. These results indicate the benefits that lend empirical support to this kind of intervention, which aims to improve the family's distress and to provide necessary emotional support (Buckner & Yeandle, 2011).

Regarding satisfaction with this psychological support program, participants show high levels of satisfaction and good adherence. Actually, the dropout rate (13.3%) was even lower than the one shown in other studies, which was about 22% (Olfson et al., 2009).

This study provides empirical data with a 12-months follow-up of a program aimed at relieving the emotional distress of relatives (guilt, shame, anger, and sadness). These areas are not addressed in other interventions, as they are more aimed at helping the patients themselves, providing psychoeducation, family functioning, and modifying expressed emotion, but not paying specific attention to the emotional situation of family members (Magliano, Fiorillo, Malangone, De Rosa, & Maj, 2006; Stanbridge, Burbach, Lucas, & Carter, 2003).

However, this study also has some limitations. More extensive research with experimental designs, increasing sample size, and with a longer follow-up period is required to obtain more conclusive results. Likewise, it would be interesting for further research to distinguish the caregiver's sex, the type of patients' relatives (e.g., father/mother, sister/brother, partner or descendants) seeking therapeutic help, as well as the specific type of mental illness (psychotic disorder, bipolar, or addictive disorder), and the different stages of illness in order to tailor the support programs to the individual's specific needs and interests. Another limitation could be that this treatment was carried out by only one therapist (the first author) and her effects were not measured. Finally, participants (23%) who do not improve very much with the program should be further studied and their specific characteristics analyzed.

In summary, the results of this study, although very positive, should be verified in future research using a control group comparison design.

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