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RESEARCH ARTICLE

Effectiveness in the Long-Term Follow-Up of Brief Group Psychoanalytic Psychotherapy in Quality of Life, Symptoms, Coping, Anxiety, and Depression in Systemic Lupus Erythematosus Patients

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ABSTRACT

Objective: To evaluate the effectiveness in the long-term follow-up of brief group psychoanalytic psychotherapy in improving quality of life, symptoms, coping strategies, anxiety, and depression levels in systemic lupus erythematosus (SLE) patients.

Methods: Prospective, randomized clinical trial including 80 SLE patients divided into two groups: therapy (n=37) and control (n=43), with standard clinical care. Therapy group received weekly therapy for 20 weeks. The assessments were at baseline, after 20 weeks and after 24 months from the end of intervention. Damage and disease activity were assessed by rheumatologists. Self-administered questionnaires were supervised by blind evaluators: quality of life, symptoms, coping strategies, anxiety, and depression. Intent to treat statistical analysis. Comparisons of variance between groups over time (ANOVA repeated measures). P <0.05 significant.

Results: At baseline, both groups were homogeneous. After intervention, therapy group showed significant improvement in most domains of quality of life, symptoms, all domains of anxiety, and depression and several domains of coping strategies. Benefits in quality of life and coping remained at 24 months follow-up. However, the improvement in anxiety, and depression was not maintained. Medications and clinical variables did not change.

Conclusion: This study showed the effectiveness of brief group psychoanalytic psychotherapy in improving quality of life, symptoms and coping strategies in SLE patients even in the long-term follow-up. Depression and anxiety levels reduced at the end of therapy, although, the improvement did not last 24 months.

Keywords: clinical trial, coping strategies, long-term follow-up, psychoanalytic psychotherapy, quality of life, systemic lupus erythematosus

Introduction

Systemic lupus erythematosus (SLE) is a systemic autoimmune disease with heterogeneous and multisystem involvement. Clinical features can be quite variable, ranging from mild joint and skin involvement to severe internal organ disease[1] and affect mainly women at childbearing age.[2] SLE can affect the central nervous system (CNS), causing a variety of neurological and psychiatric manifestations.[3]

Physical and psychological stress are involved in autoimmune diseases[4] as onset and trigger of disease flares.[5-7] This unpredictable and chronic course is stressful and causes an impact on patient's lives relating to variable prognosis and severe symptoms.[8-9]

Quality of life (QOL) in SLE patients is defined as feeling good and healthy, to be able to work and be independent. Patients report many symptoms and dissatisfaction with life; they claimed a lack of support and self-control over their bodies.[10-11] SLE patients have poorer mental and physical function than the general population all over the world.[12-15]

Coping includes strategies to manage the stress caused by some events as chronic diseases.[16] SLE patient's coping is mostly passive with acceptance strategies. Active coping could help in preserving QOL and psychological interventions should diversify and expand coping strategies in SLE patients.[17-18]

Considering psychiatric disorders in SLE, anxiety and depression occur in 14% to 75%, higher than in the general population.[3] Anxiety and depression associated with stress usually impact SLE patient's QOL.[19-21]

Most results of psychological interventions applied to SLE patients points to positive changes in QOL, anxiety, depression, stress, and physical and mental health.[18,22-24] Few clinical trials, using different psychological techniques, were conducted for 12 months follow-ups, in maximum.[25-30]

Our previous study was the first randomized controlled clinical trial in SLE patients using brief group psychoanalytic psychotherapy (BGPP).[31] This technique is derived from the Pierre Marty model practiced in the Psychosomatic School of Paris, applying a psychoanalytic method to psychosomatic patients.[32] It is also being used at Psychiatric Department of Escola Paulista de Medicina, Universidade Federal de São Paulo, Brazil.[33] In our previous study, we adapted this technique to a time-limited design according to Luborsky and Sifneos recommendations.[34-35] Our study showed excellent improvement in QOL, symptoms, coping, anxiety, and depression levels after 20 weeks intervention.[31]

According to Blay and colleagues, the results of time-limited psychotherapy in psychiatric patients are not stable and get lost over time.[36] There is no study evaluating the long-term effect (longer than 12 months) of psychotherapy in SLE patients.

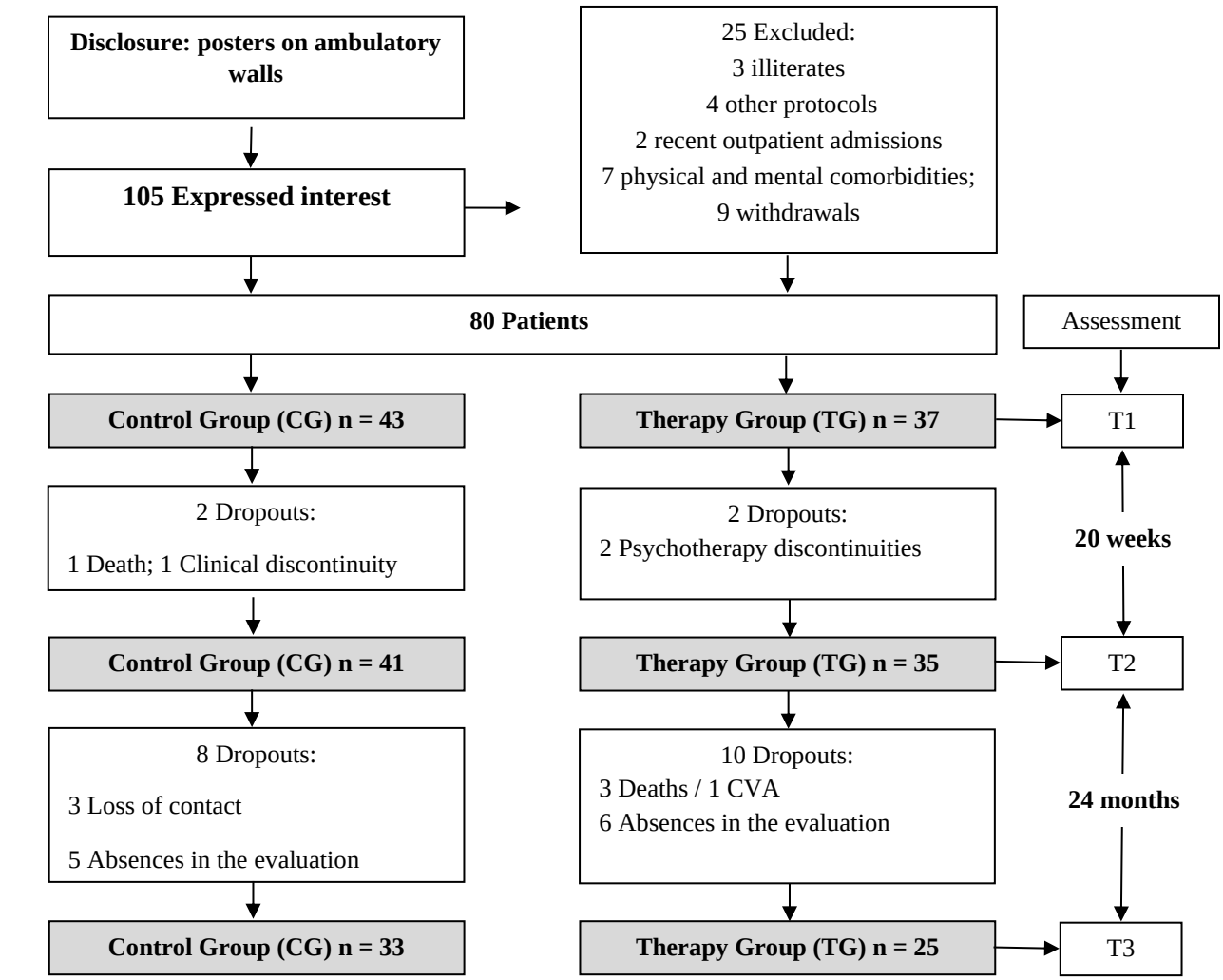
The objective of the study was to evaluate the effectiveness of BGPP on QOL, symptoms and coping, as well, on the level of anxiety, and depression in patients with SLE.

Patients and Methods

A controlled, randomized clinical trial was registered at clinicaltrials.gov (number NCT01840709).

Participants

As reported in the previous article,[31] patients were recruited from the Autoimmune Rheumatic Disease outpatient clinic at University Hospital. One hundred and five patients declared interest, nonetheless, 25 dropped out due to difficulty to fulfill the protocol or presented exclusion criteria. A total of 80 female SLE patients were enrolled and were randomized by computer table performed for a professional statistician and divided into two groups: therapy and control (Figure 1).



Note: CVA = Cerebrovascular accident

Figure 1. Flow diagram including intent to treat analysis.

All patients filled the questionnaires supervised by blind psychological evaluators at baseline (T1), after 20 weeks (T2) and after 24 months from T2 (T3.

The physicians involved in the clinical evaluations analyzed the inclusion and exclusion criteria according to medical records and patient data and they were also blinded to the patient allocation group.

Inclusion criteria were female gender, fulfill American College of Rheumatology (ACR) SLE classification criteria,[37] age over 18 years and follow-up at the institution for at least 6 months.

Exclusion criteria were illiterate, presence of severe mental diseases (severe cognitive deficit, schizophrenia, bipolar disorder or severe depression), physical conditions that could preclude their weekly participation and patients who were receiving psychological treatment or were participating in other clinical protocols.

The therapy group (TG n=37) was divided into four subgroups, with maximum of ten participants, according to patient's preferred schedule offered for attendance. The control group (CG n=43) remained on a waiting list receiving standard medical care and orientations about the disease. Both groups received usual medical treatment throughout the study. All patients on TG attended at least 15 of 20 sessions during the therapy (75%), except the two dropouts.

Some patients dropped out during the study. CG and TG lost two patients each at T2. The losses at T3 were eight in CG and ten in TG (Figure 1). In T2 and T3 assessments the patients were contacted to attend the evaluation in one of three possible schedules for a whole month.

All participants signed the informed consent form approved by the Research Ethics Committee of the Federal University of São Paulo/São Paulo Hospital (protocol 1655/09).

Assessment Instruments

Clinical evaluations were performed by physicians during the routine medical consultation and self-applied questionnaires and scales were also supervised by blinded assessors. Religion and race were self-nominated. All instruments were validated and adapted to the Portuguese language and were applied at T1, T2, and T3, except the SLICC score that was applied only at T1 and T3, because damage score needs at least six months to be reevaluated.

1 – ABIPEME Criteria (*Associação Brasileira de Institutos de Pesquisa de Mercado*):[38] Socioeconomic questionnaire that evaluates the comfort items at home and classified as class A, B, C, D and E. Class A corresponds to the best socioeconomic level. The education is presented in categories according to the number of years of study.
2 – SLICC/ACR-DI (Systemic Lupus International Collaborating Clinic/American College of Rheumatology - Damage Index):[39] Irreversible SLE damage index, presented for at least 6 months, evaluating 12 organic systems, and calculated by a physician.
3 – SLEDAI-2k (Systemic Lupus Erythematosus International Disease Activity):[40] A measure of the activity of the disease, scoring each variable of the affected system, evaluated by a physician.
4 – SLEQOL (Systemic Lupus Erythematosus Quality of Life):[41-42] A self-related questionnaire with 40 items in 6 domains (physical function, occupational activity, symptoms, treatment, humor, self-image) evaluating the SLE quality of life. The score of each item varies from 0 to 7 and higher scores correspond to poorer quality of life.
5 – SLE-SSC (Systemic Lupus Erythematosus Specific Symptom Checklist):[41-43] A self-related SLE symptom checklist with 38 items evaluating the presence and intensity of several symptoms in the last 30 days. Higher scores indicate worse results.
6 – CSI (Coping Strategies Inventory):[44-45] A self-applied questionnaire evaluating coping strategies to deal with stressful events with 66 items in 8 domains (confrontive, distancing, self-controlling, seeking social support, accepting responsibility, escape, and avoidance, planful problem solving, positive reappraisal). Each item can be scored from 0 to 3. It can measure mature coping, escape/avoidance, and aggressiveness strategies.
7 – HADS (Hospital Anxiety and Depression Scale):[46-47] A self-administered questionnaire evaluating the domains of anxiety and depression (7 questions by domain). Higher scores indicate higher severity of symptoms.

Intervention

Intervention, as described in our previous study,[31] was performed in 90-minute sessions once a week for 20 consecutive weeks for each subgroup using BGPP. The same facilitators managed all the subgroups in this study to guarantee the standardization of treatment.

The procedure was not manualized, but semi-structured and flexible according to the need of groups at that time. The sessions were organized to achieve the objective to improve the quality of life, symptoms, coping strategies, anxiety, and depression. Patients were sitting in a circle to facilitate integration. In the first session, the patients introduced themselves and presented their expectations regarding treatment. They also elected topics to discuss during the sessions. From the second to the nineteenth session these topics were developed, one per day, according to the needs of each meeting and freely chosen by any participant. The subgroup dynamics were focused on topics, but it allowed the free association of ideas, making possible the emergence of emotional content. Coping strategies against life stressors, mainly the disease, were trained during the process. In the last session, the anguish of loss was discussed and new ways to manage the disease and other everyday problems were emphasized.

A therapist, an experienced psychologist in this approach (CTMC), and a co-therapist (IMM), who is also a rheumatologist, conducted the intervention. Both have more than thirty years in clinical practice and training in psychoanalysis. The therapist coordinated the group leading the therapeutic process, promoting expression and relationship, and analyzing psychological contents. The role of the co-therapist was to observe and note the content of the sessions to make additional comments.

Statistical Analysis

The sample size (80 patients) was calculated considering SLEQOL questionnaire as presented in a previous study.[31]

Intra- and inter-group analysis was performed at baseline (T1), after 20 weeks (T2) and 24 months from T2 (T3). Descriptive statistics were used for sample characterization. Categorical variables was compared using the Pearson *Chi*-square test. Quantitative variables between groups was compared using Student *t*-test for those with normal distribution, and Mann-Whitney test for non-normal distribution. Analysis of variance test (ANOVA) was

used to compare categorical variables over time, with intra-group *p*, inter-group *p*, and interaction *p*. Means and standard deviation were used to analyze the data with a normal distribution. Intent to treat statistical analysis was performed. Statistical Package for the Social Sciences (SPSS), version 17.0 (Chicago, USA) was used for all statistical analysis. $P < 0.05$ was considered significant.

Results

The Table 1 depict demographic data, medications and SLICC/ACR-DI scores of 80 SLE patients.

At baseline, there was no difference concerning age, disease duration and race/ethnicity between CG and TG. The mean age of the patients was around 42 years, and the mean of disease duration was around 12 years. Regarding race/ethnicity, the participants were white or afro-descendant. According to the patient's information, 48.75% were catholic and 32.5% were evangelic, followed by spiritualist (7.5%), Jehovah witness (6.25%), Buddhist (1.25%) and no religion (3.75%), without difference between groups.

There was no difference between groups related to years of education (p =0.625). Among SLE patients, 48.7% completed elementary school (10 years of study); 37.5% completed high school (15 years of study), 10% of patients had less than 4 years of study and only 3.7% had university level.

The most frequent socioeconomic classes were C (57.5%) and D (30%) classes, without differences between groups (p 0.846). No patients belonged to A and B classes and 12,5% belonged to the E class.

Considering the cumulative frequency of different organ and system involvement, our patients presented cutaneous involvement in 93.7%, hematological in 86,2%, articular in 73.7% and renal involvement in 60%. The CNS involvement was lower, with convulsion in 13.7% and lupus psychosis in 7.5%.

The most frequent comorbidities were arterial hypertension (65%), fibromyalgia (46.5%) and dyslipidemia (41.2%). Depression was found in the medical records in 15 patients (18.7%), but according to the HADS criterion, considering the 8/9 cutoff point, the score indicated anxiety disorder in 57.5% of patients and depressive disorder in 37.5% of patients at the moment of the study.

The medications used to control lupus and neuropsychiatric symptoms were similar between groups and they did not vary significantly during the study. In general, the SLICC/ACR-DI score was low, without differences between groups (Table 1).

Table 1: Social, demographic and clinical data of SLE patients in control and therapy groups.

Patients (n=80)	Control (n=43)	Therapy (n=37)	*P* value
Age mean (SD)*	42.7 (11.3)	42.0 (12.3)	0.798
Disease duration mean (SD)**	11.6 (8.2)	12.4 (7.8)	0.511
Race/Etnicity n (%)***			0.642
White Afro descendants	22 (54.2) 21 (45.8)	17 (45.9) 20 (54.1)	
Lupus medications n (%)***			
Azathioprine	11 (25.6)	09 (24.3)	0.897
Hydroxychloroquine	25 (58.1)	19 (51.4)	0.542
Prednisone	24 (55.8)	21 (56.8)	0.932
Neuropsychiatric medications n (%)***			
Amitriptyline	07 (16.3)	06 (16.2)	0.994
Cyclobenzaprine	03 (7.0)	02 (5.4)	0.770
Fluoxetine	09 (20.9)	07 (18.9)	0.882
SLICC/ACR-DI n (%)***			0.055
Zero	22 (51.2)	11 (29.7)	
1.00	12 (27.9)	17 (45.9)	
2.00	06 (14.0)	02 (5.4)	
3.00	03 (7.0)	04 (10.8)	
4.00	00 (.0)	03 (8.1)	

SLICC/ACR-DI - Systemic Lupus International Collaborating Clinics/American College of Rheumatology-Damage Index (Range: 0 – 46)

*t -Student test; **Mann-Whitney test; *** Pearson *Chi*-square test

The SLICC scores, accessed only at T1 and T3, were not different between groups and did not change through the study (Table 2).

The SLEDAI-2k scores were also comparable in either the intra- or inter-group analysis. Even if a few patients had presented highly active disease in both groups, the mean level of disease activity was low and comparable between TG and CG. During the study, we observed a decrease in SLEDAI score for both groups (Table 2).

Table 2: Damage and disease activity scores in SLE patients in control and therapy groups.

Scales	Assessment	Control (n=43)	Therapy (n=37)	Inter-group *P*	Interaction *P*
SLICC	T1	0.77 (0.95)	1.22 (1.23)	0.075	0.531
	T3	0.72 (0.96)	1.03 (1.12)	0.075	
	Intra-group *P*	0.301	0.301		
SLEDAI-2k	T1	2.44 (4.36)	2.70 (4.03)	0.283	0.319
	T2	2.12 (3.59)	3.73 (5.30)	0.283	
	T3	1.70 (3.26)	1.92 (2.70)	0.283	
	Intra-group *P*	0.044	0.044		

SLICC/ACR-DI – Systemic Lupus International Collaborating Clinics/American College of Rheumatology-Damage Index (Range 0 – 46)
SLEDAI-2k – Systemic Lupus Erythematosus Disease Activity Index (Range 0 – 105)
Inter-group, Interaction and Intra-group P – ANOVA test – Analysis of Variance – mean (SD)
P < 0.05 – significant

The results showed improvement in TG quality of life, by positive changes in five domains of SLEQOL scores (occupational activity, symptoms, treatment, humor, and self-image) and most intra-group, inter-group and interaction *p* were <0.001, showing significant differences between groups along the study period. The physical function domain did not change, so it was not included in the table (Table 3).

Table 3: Quality of life and specific symptoms checklist scores in SLE patients in control and therapy groups.

Scales	Domain	Assessment	Control (n=43)	Therapy (n=37)	Inter-group *P*	Interaction *P*
SLEQOL	Occupational activity	T1	28.1 (16.3)	27.3 (13.0)	0.812	< 0.001
		T2	33.1 (15.8)	20.8 (10.4)	< 0.001	
		T3	33.5 (14.6)	20.8 (9.7)	< 0.001	
		Intra-group *P*	0.053	< 0.001		
	Symptoms	T1	22.3 (9.7)	23.9 (12.1)	0.516	< 0.001
		T2	25.2 (9.6)	17.7 (8.0)	< 0.001	
		T3	25.6 (9.2)	18.7 (8.1)	0.001	
		Intra-group P	0.008	0.001		
	Treatment	T1	11.0 (5.0)	10.6 (4.2)	0.648	0.005
		T2	11.8 (5.7)	8.1 (4.2)	0.002	
		T3	12.3 (5.3)	8.7 (4.4)	0.001	
		Intra-group P	0.230	0.009		
	Humor	T1	13.9 (7.7)	15.4 (7.3)	0.361	< 0.001
		T2	14.6 (7.3)	10.1 (5.8)	0.003	
		T3	14.7 (6.9)	10.4 (6.0)	0.004	
		Intra-group P	0.616	< 0.001		
	Self-Image	T1	22.4 (10.7)	25.2 (10.5)	0.247	< 0.001
		T2	23.0 (10.7)	16.5 (7.0)	0.002	
		T3	24.6 (10.8)	17.1 (7.1)	0.001	
		Intra-group P	0.260	< 0.001		
SLE-SSC		T1	51.8 (22.2)	52.8 (23.0)	0.844	< 0.001
		T2	55.5 (23.8)	37.6 (20.2)	0.001	
		T3	54.4 (21.0)	37.7 (17.6)	< 0.001	
		Intra-group P	0.438	< 0.001		

SLEQOL – Systemic Lupus Erythematosus Quality of Life (Range 40 – 280)
SLE-SSC – Systemic Lupus Erythematosus Specific Symptom Checklist (Range 0 – 152)
Inter-group, Interaction and Intra-group *P* – ANOVA test – Analysis of Variance – mean (SD)
P < 0.05 – significant

At baseline, the groups were similar concerning SLE-SSC scores, but TG patients showed a significant reduction in frequency and intensity of self-related symptoms after psychotherapy. Interaction *p* showed significant differences between groups within the study period (Table 3).

Concerning CSI, the TG inter-group analysis showed significant differences between groups in the escape and avoidance, planful problem solving and positive reappraisal domains after the therapy that remained in the long-term follow-up. In the TG intra-group analysis, positive changes, including in accepting responsibility, were observed during the study and interaction *p* was significant. The confrontive, distancing, self-controlling and seeking social support domains of coping did not change during the study. So, they were not included in the table (Table 4).

Table 4: Coping scores in SLE patients in control and therapy groups.

Scales	Domain	Assessment	Control (n=43)	Therapy (n=37)	Inter-group *P*	Interaction *P*
CSI	Accepting responsibility	T1	1.51 (0.66)	1.39 (0.60)	0.385	
		T2	1.38 (0.66)	1.55 (0.67)	0.250	0.009
		T3	1.37 (0.65)	1.64 (0.65)	0.061	
		Intra-group *P*	0.278	0.034		
	Escape and avoidance	T1	1.65 (0.89)	1.80 (0.86)	0.460	
		T2	1.66 (0.89)	1.38 (0.86)	0.152	0.012
		T3	1.72 (0.74)	1.16 (0.80)	0.002	
		Intra-group *P*	0.907	0.001		
	Planful problem solving	T1	1.66 (0.72)	1.64 (0.78)	0.901	
		T2	1.55 (0.75)	1.99 (0.76)	0.011	0.013
		T3	1.56 (0.81)	1.93 (0.67)	0.035	
		Intra-group *P*	0.676	<0.001		
	Positive reappraisal	T1	1.75 (0.72)	1.60 (0.58)	0.324	
		T2	1.49 (0.73)	1.80 (0.64)	0.047	0.001
		T3	1.52 (0.67)	1.86 (0.53)	0.015	
		Intra-group *P*	0.063	< 0.001		

CSI – Coping Strategies Inventory (Range 0 – 3 per domain)
Inter-group, Interaction and Intra-group *P* – ANOVA test – Analysis of Variance – mean (SD)
P < 0.05 – significant

HADS showed similar levels of anxiety and depression in TG and CG at baseline. A significant difference between groups in anxiety (inter-group *p*=0.010) and depression (inter-group *p*=0.021) levels was observed at T2, but this difference did not remain at T3. Despite this, the intra-group analyses showed a positive reduction of anxiety and depression levels inside TG, highlighting the good effects of psychotherapy intervention, while control group had worst results, mainly in anxiety levels. The interaction *p* points out different courses between groups during the study (Table 5).

Table 5: Anxiety and depression scores in SLE patients in control and therapy groups.

Scale	Domain	Assessment	Control (n=43)	Therapy (n=37)	Inter-group *P*	Interaction *P*
HADS	Anxiety	T1	7.81 (4.37)	8.68 (4.13)	0.370	
		T2	8.86 (4.72)	6.38 (3.50)	0.010	< 0.001
		T3	8.53 (4.22)	6.81 (3.78)	0.060	
		Intra-group *P*	0.285	< 0.001		
	Depression	T1	6.23 (4.44)	7.24 (4.34)	0.309	
		T2	7.33 (4.16)	5.22 (3.82)	0.021	< 0.001
		T3	6.95 (3.99)	5.49 (4.02)	0.106	
		Intra-group *P*	0.145	< 0.001		

HADS - Hospital Anxiety and Depression Scale (Range 0 – 21 per domain)
Inter-group, Interaction and Intra-group *P* – ANOVA test - Analysis of Variance - mean (SD)
P < 0.05 - significant

Discussion

The current study intended to analyze if the BGPP technique could maintain the benefits in results achieved at the end of psychoanalytic psychotherapy performed in 20 consecutive sessions. The results showed the effectiveness of psychoanalytic psychotherapy in improving the quality of life, symptoms, and coping strategies in SLE patients even in the long-term follow-up. Concerning the anxiety and depression level, the psychotherapy was only effective in the short term.

Our sample of 80 patients was randomized, which helped in ensuring the homogeneity of the groups related to physical and emotional characteristics. The age of the patients, the duration of the disease, and other socio-demographic characteristics were similarly distributed between the two groups. The lupus involvement and the frequency of fibromyalgia were also similar between the control and therapy group as well as the frequency of anxiety and depression disorders.

In the SLEQOL, five of six domains remained better than at baseline, showing improvement in occupational activity, symptoms, adherence to treatment, humor, and self-image. These results were sustained until the end of the study. The domain of physical function did not change. The results at T2 were similar to other studies with shorter follow-up (up to 12 months),[25-26,28-30] , however, our study was pioneer to show that the benefits remained even at 24 months after the end of BGPP. Our results also showed the number and intensity of symptoms in the SLE-SSC checklist decreasing significantly over time.

Related to coping strategies, four of eight domains had different results in the therapy group compared to the control group over time. Accepting and responsibility, escape, and avoidance, planful problem solving, and positive reappraisal domains improved at the end of the therapy and remained for the 24 months of follow-up. These domains represent more mature ways of dealing with stressful events. Therefore, these results showed that BGPP was effective in helping patients to better cope with the disease and other stressful aspects of life. The domains of confrontive, distancing, self-controlling and seeking social support did not change.

Our study demonstrated the maintenance of most benefits of BGPP in SLE patients related to the quality of life, symptoms, and coping skills in the long-term follow-up. However, anxiety and depression levels, which had improved in the short term, did not remain after this period, showing that BGPP was not enough strong to sustain this improvement in the long run. Although these levels were lower in therapy group at T3 compared with baseline, the results showed different courses between groups during the study, without significant differences in the follow up.

Agreeing with Blay,[36] who worked with psychiatric patients, we observed that BGPP applied to SLE patients for 20 sessions was also unable to maintain gains in the long-term results concerning anxiety and depression. According to other studies, it seems the good results in anxiety and depression only remain for shorter follow-up.[26,29-31] Blay and colleagues conducted a study using psychotherapy for only eight sessions.[36] This intervention did not prove to be effective after 24 months because the results returned to the initial point, perhaps because the technique was applied for a too short period. Comparing with the therapy we performed for 20 sessions it was observed that this technique is more effective in the long-term follow-up related to QOL and coping skills. However, even though anxiety and depression were better than at baseline the results did not show enough power of BGPP to maintain the gains along the time. It remains to be seen whether longer therapies could guarantee long-lasting results.

Previous short-term studies had interesting outcomes using different kinds of psychological techniques.[25-30] Dobkin did not observe differences between the groups[25] however others had good results in QOL, coping, anxiety, and depression,[26-30] including two multicenter Canadian controlled trials with a large sample, 12 sessions of supportive-expressive technique, similar to our technique and 12 months of follow-up.[25-26] Haupt's study was the most comparable study to ours with the same technique and similar duration of therapy (18 sessions) but it was not randomized and had a smaller sample than ours. In a short follow-up of 6 and 12 months, it also got similarly good results than ours.[29]

In our study, we also expected the maintenance of the results in the long-term follow-up. We got it in QOL and coping but not in anxiety and depression. These two variables worsened a little comparing with results right after the therapy. Nevertheless, they did not return to the previous levels of the beginning of the study, showing significant improvement inside the therapy group.

As we expected, the BGPP did not influenced the damage score. In general, the patients did not present a high damage score and both groups had comparable SLICC score at baseline and at the end of the study.

The disease activity level was mild and homogeneous in therapy and control groups at baseline. However, it presented an interesting decreasing score in both groups over time (intra-group p=0.044). Both control and therapy groups improved from the beginning to the end of the study. This fact may be due to efficient medical care attendance for all patients. In general, disease activity is not influenced by psychological care, according to other studies.[27,29-30]

We worked with a convenience sample of patients with systemic lupus erythematosus from a public hospital in São Paulo Brazil. This population had a low socioeconomic level, so we cannot generalize the results to all patients with this disease. The level of education was medium, and few patients had university degree. Our sample was larger than the other studies from a single center,[29-30] bringing strength and robustness to our results. The rigorous methodology used for the randomized controlled clinical trial had also contributed to favor of the reliability of our results.

The follow-up was natural, without control over other treatments that patients may have received. Unfortunately, we had several dropouts mainly because of the long-term follow-up. Despite attempts to contact patients, many of them did not attend the last evaluation while some lost the contact. The patients were asked to attend one of three schedule options made available at the clinic for one month, however several of them did not attend. The intention to treat analysis was performed to offset these losses and the last assessment was repeated in these cases.

Further studies are expected to be carried out to observe the effects of psychotherapy after a long time to prove which technique would fit better for SLE patients. Perhaps the long-term therapies can have more lasting results. Another question is that fibromyalgia is frequent in SLE patients and psychotherapy can be helpful to the two disorders.

More studies are needed to provide SLE patients with better conditions to deal with the illness and other issues of life, achieving better emotional equilibrium and the ability to face the negative impact of SLE on physical and mental health. The reduction of anxiety and depression levels for a long time must be tried in further studies.

Conclusion

This study showed the effectiveness of BGPP in improving quality of life, symptoms, and coping strategies in SLE patients in long-term follow-up, and helped them to deal with stress. Depression and anxiety levels reduced significantly only in the short-term period. The results demonstrated that the improvement in anxiety and depression did not last in the long- term follow-up. Even so, many of the benefits achieved with the therapy were maintained along the time. BGPP is recommended to help SLE patients face the disease with mature coping strategies, reducing the negative impact on the quality of life generally associated with chronic physical illnesses.

Author Contributions: CTMC performed the therapy, wrote the manuscript, analyzed psychological data. IMM helped the intervention, analyzed clinical data, and recruited patients. SLB and EIS supervised all the study and reviewed the manuscript. All authors read and approved the final manuscript.

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Clinical or methodological significance of this article: It is a prospective and randomized clinical trial, including 80 SLE patients in a single center. The psychological technique used followed the psychoanalytical approach (brief group psychoanalytic psychotherapy). This study was the first clinical trial using psychotherapy intervention that tested the results in a long-term follow-up in SLE patients. These results showed the effectiveness of brief group psychoanalytic psychotherapy in improving quality of life, symptoms and coping skills. Therapy was unable to maintain long term improvements regarding anxiety and depression. Psychotherapy is recommended to help SLE patients in improving quality of life and symptoms and to cope with the disease.

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