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A schema-focused approach to group psychotherapy for outpatients with borderline personality disorder: A randomized controlled trial

Joan M. Farrell [a,*], Ida A. Shaw [b], Michael A. Webber [a]

[a] Indiana University School of Medicine, Department of Psychiatry, Center for Borderline Personality Disorder Treatment & Research, Larue D. Carter Memorial Hospital, 2601 Cold Spring Road, Indianapolis, IN 46222, USA
[b] BASE Consulting Group, LLC, 6551 Carrollton Avenue, Indianapolis, IN 46220, USA

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ABSTRACT

This study tests the effectiveness of adding an eight-month, thirty-session schema-focused therapy (SFT) group to treatment-as-usual (TAU) individual psychotherapy for borderline personality disorder (BPD). Patients ($N = 32$) were randomly assigned to SFT-TAU and TAU alone. Dropout was 0% SFT, 25% TAU. Significant reductions in BPD symptoms and global severity of psychiatric symptoms, and improved global functioning with large treatment effect sizes were found in the SFT-TAU group. At the end of treatment, 94% of SFT-TAU compared to 16% of TAU no longer met BPD diagnosis criteria ($p < .001$). This study supports group SFT as an effective treatment for BPD that leads to recovery and improved overall functioning.

1. Introduction

Borderline personality disorder (BPD) is a disabling and prevalent psychiatric disorder, which is characterized by substantial distress and disruptions in functioning. Patients with BPD experience a chronic pervasive pattern of instability in areas of affect, behavior, interpersonal relationships, identity, and cognition. It is a disorder with high prevalence – 1–2% in the general population and up to 25% or more in clinical populations, depending upon the study (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). Prevalence appears to be increasing, as recently the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions found a prevalence rate of 5.9% for BPD in the general population (Grant, Chou, Goldstein, Huang, Stinson, Saha, et al., 2008). Although several medications

* Corresponding author. Tel.: +1 317 941 4331.
E-mail address: joan.farrell@fssa.in.gov (J.M. Farrell).

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have shown efficacy for various symptoms in controlled trials, the Cochrane review indicates that there is no convincing evidence that any medication is a treatment for BPD as a whole (Stoffers, Lieb, Voellm, et al., in preparation). Thus, psychotherapy continues to be the necessary and primary treatment modality for BPD (Webber & Farrell, 2008).

Specific structured psychotherapies have demonstrated efficacy for some BPD symptoms in randomized controlled clinical trials. These include Dialectical Behavioral Therapy (Linehan, Comtois, Murray, Brown, Gallop, Heard, et al., 2006), Schema-Focused Therapy (Schema Therapy; Giesen-Bloo, van Dyck, Spinhoven, van Tilburg, Dirksen,van Asselt, et al., 2006), Cognitive Therapy (Davidson et al., 2006); Transference-Focused Psychotherapy (Clarkin, Levy, Lenzenweger, & Kernberg, 2007; although differences with comparison groups were N.S.), Mentalization-Based Therapy (Chiesa, Fonagy, & Holmes, 2006), and Systems Training for Emotional Predictability and Problem Solving (Blum et al., 2008). Two recent pilot studies targeted specifically toward reducing self-injury also look promising (Gratz & Gunderson, 2006; Weinberg, Gunderson, Hennen, & Cutter, 2006). Comparability across treatments, however, is limited by the use of different measures of BPD symptoms, their severity and global adjustment (McMain & Pos, 2007; Moher, Schulz, & Altman, 2001).

Despite the positive findings of these treatments for *some* patients and *some* symptoms of the disorder, comprehensive BPD treatment continues to be a challenge. The BPD symptoms least impacted by psychotherapeutic treatment are those more related to temperament and the ability to function effectively in occupational and social roles (Binks et al., 2006). Consumers of BPD treatment express dissatisfaction with psychotherapy that eliminates life-threatening symptoms, but leaves them underemployed and still feeling dysphoric and empty (Alexander, 2006a, 2006b). Schema-Focused Therapy (SFT) has shown particular promise as a comprehensive treatment for BPD with the goal of complete recovery in a large, well-designed clinical trial of individual psychotherapy twice weekly for three years or less in the Netherlands (Giesen-Bloo et al., 2006). In addition, cost-effectiveness for SFT was demonstrated (Van Asselt et al., 2008). An independent small-scale Norwegian case series study reported similar effectiveness of individual SFT (Nordahl & Nysaeter, 2005).

The consistency and duration of psychotherapy that may be needed for more comprehensive BPD treatment, however, is difficult to obtain, particularly for individuals with severe symptoms who are treated in public healthcare settings. There are compelling economic and service delivery reasons to use a group psychotherapy modality. In addition, groups uniquely possess important curative factors stemming from supported peer-to-peer interactions, such as universality, a sense of belonging, vicarious learning, and opportunities for in vivo practice, among others. In light of the clinical and cost-effectiveness of SFT and the potential advantages of the group format, we developed a schema therapy group for outpatients with BPD and conducted a randomized controlled clinical trial of this group treatment added to ongoing individual psychotherapy "as usual". This study tests the hypotheses that the active treatment group participating in a thirty session, eight-month schema therapy group program in addition to weekly individual psychotherapy will experience significant reductions in BPD symptoms and global severity of psychiatric symptoms and improvement in global functioning compared to the control group participating in individual treatment-as-usual (TAU) alone.

2. Method

2.1. Participants

Thirty-two women with a diagnosis of BPD, ages 22–52, were located by referral from individual psychotherapists in the community. The study was advertised by flyers sent to all psychologists and psychiatrists who were affiliated in any way with the local medical school and posted in local community mental health and university outpatient clinics. Potential subjects could inquire about the study themselves but needed to be referred by their individual psychotherapist to participate in the study.

Patients who agreed to participate were told that they would be randomly selected as to whether they were assigned to the group treatment added to their individual psychotherapy, or would remain in their individual psychotherapy. The informed consent suggested that the time and effort involved for those in the control group would contribute to our understanding of effective BPD treatment. In addition, participants were informed that they would be offered the treatment found to be most effective after the

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study's completion. If this were the group treatment, they would receive it free of charge as a kind of compensation for their involvement. The likelihood that the treatment of patients continuing in TAU alone would be negatively affected by not being assigned to the adjunctive, experimental SFT-group treatment is thought to be low. At the time of the study SFT was not a known treatment in the community.

For inclusion, subjects had to be females between the ages of 18 and 65, who met criteria for a BPD diagnosis confirmed by the Diagnostic Interview for Personality Disorders-Revised (Gunderson, Frankenburg & Chauncey, 1990) and the Borderline Syndrome Index (Conte, Plutchik, Karasu, & Jerrett, 1980) and were in individual psychotherapy of at least six-months duration and would agree to continue that treatment for the course of the study. Weekly individual psychotherapy, eclectic in orientation and primarily supportive was "treatment as usual" in the community. Attendance at weekly individual psychotherapy sessions was a condition of remaining in the study. Therapists were MD psychiatrists, senior psychiatry residents with supervision, experienced master's level Clinical Social Workers and Ph.D. psychologists. Patients were followed in private practice, university outpatient and community mental health center settings. Exclusion criteria were: an Axis I diagnosis of a psychotic disorder or a below average IQ (89), as measured by the Shipley Institute of Living Scale. IQ was made an exclusion criterion because of the cognitive and reading demands of the program. An open clinical interview conducted by an experienced clinical psychologist was used to confirm the absence of psychosis. Patients were randomly assigned using a random number table to the treatment or control group after qualifying for the study. Control of psychopharmacological treatment was beyond the scope of the study. Patients were stable on their psychotropic medications before randomization, limiting the likelihood of a confounding effect from drug treatment. Pharmacotherapy was limited to first generation antipsychotics, selective serotonin reuptake inhibitors, tricyclic antidepressants and/or benzodiazepines. All patients had a history of suicide attempts and self-injury in the two-year period before the study began.

Fig. 1 shows the patient flow. There was no drop out from the SFT-group arm at any point, but 25% of the TAU group were lost before first follow-up, leaving $N = 12$ in the control group. Table 1 presents the main demographic characteristics of both groups. For the control group, only completers' characteristics are given.

2.2. Outcome measures

1. Borderline Syndrome Index (BSI) (Conte et al, 1980) a 52 item true or false self-report measure of BPD symptoms that allows measurement of change by specifying a time period for the subject to base answers on. The BSI asks for presence of 52 BPD symptoms during the last 2 weeks. The total score has an internal consistency KR-20 = .92 ($p < .001$).
2. Symptom Check List-90 (SCL-90) (Derogatis, 1994) the global severity score (sum of all items divided by the number answered) was used as a measure of subjective experience of general symptoms. Internal consistency of this score is very high, Cronbach alpha = .79–.90.
3. Diagnostic Interview for Borderline Personality Disorders-Revised (DIB-R) (Zanarini et al., 1990) a structured interview that assesses four putative aspects of BPD psychopathology (affect, cognition, impulse, interpersonal) and assigns scaled severity scores. This measure was used to confirm diagnosis at baseline and to assess change by using a shorter time frame (Zanarini, Vujanovic et al., 2003). The DIB-R structured interviews were conducted by two Ph.D. Clinical Psychologists not involved in treatment delivery. Efforts were made to keep them blind to treatment group membership, but for 10% of the subjects the blind was broken due to patient report. Both raters were trained by the principal investigator and achieved an ICC $\geq$ .98.
4. Global Assessment of Function Scale (GAFS) ratings by patients' individual therapists was used as a measure of global functioning since it includes symptom, social and occupational functioning. Therapists were given a GAFS checklist to use so that the anchors for assigning scores were in front of them when they recorded their ratings. They were chosen as raters since they were removed from the hypotheses of the study, although not blind to their patient's group membership and no inter-rater reliability was possible.

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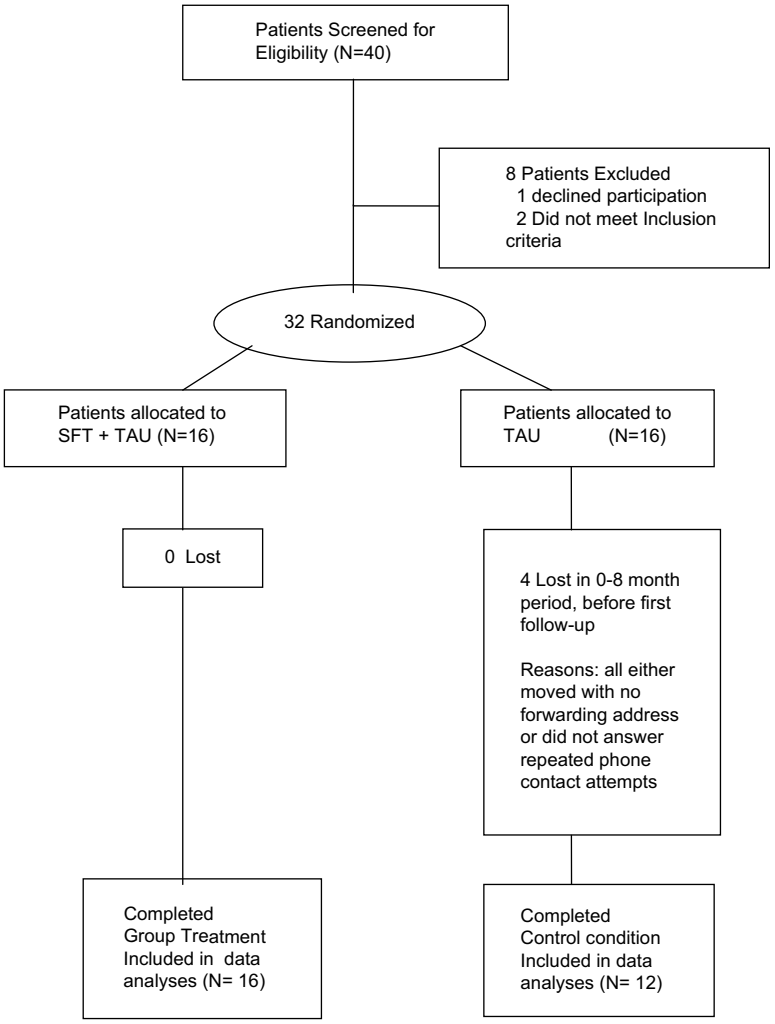

Fig. 1. Consort diagram of patient flow in the randomized controlled trial.

Outcome measures were repeated at baseline, post-treatment and at six-month follow-up.

2.3. Treatment

The group-SFT program consists of thirty weekly sessions, each lasting 90 min, over an eight-month period. Group size was six members and two active therapists, which we based upon two years of piloting BPD groups of different sizes to determine our sense of the optimal ratio of therapists to patient. This manual-based treatment (Farrell & Shaw, 1990) combines four content components that we view as central to psychotherapy for patients with BPD: emotional awareness training (described in Farrell & Shaw, 1994), BPD psychoeducation, distress management training (Farrell, Shaw, Foreman, & Fuller, 2005) and schema change work (Young, 1990; Young, Klosko, & Weishaar, 2003). This treatment combination has four goals: 1) establishing a positive therapeutic alliance through therapist validation and education that establishes the usefulness of the treatment 2) increasing emotional awareness, so that patients can notice pre-crisis distress and have some understanding of their emotional experience,

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Table 1
Patient demographics by group.

	Treatment group	Control group[a]
Age, mean (SD)	35.3 (9.30)	35.9 (8.08)
Education		
College graduate	5 (31%)	5(42%)
Some college	9 (56%)	3 (25%)
High school graduate	2 (13%)	4 (33%)
Employment status		
Housewife	2 (12.5%)	2 (17%)
Student	1 (6%)	2(17%)
Employed	11 (69%)	6 (50%)
Disability	2 (12.5%)	1 (8%)
SSI[b]	0	1 (8%)
Psychotropic medication at baseline	16 (100%)	12 (100%)
Recent suicide planning, steps, or attempts	16 (100%)	12 (100%)
Recent non-suicidal self-injury	16 (100%)	12 (100%)

[a] Completers only ($N = 12$).
[b] SSI, Supplemental security income for people with disabilities that prevent employment.

3) developing an effective individualized distress management plan and 4) helping patients become free enough of maladaptive schemas to be able to use their healthy adult coping skills. Accomplishing these goals is hypothesized to lead to decreases in the severity and frequency of BPD symptoms, a decrease in the severity of global psychiatric symptoms and improved global function. The inclusion of treatment components that provide education and target the behavioral skill deficits like distress management and emotional awareness of people with BPD is compatible with the theoretical model of SFT (Young et al., 2003). Adapting SFT to a group modality provides additional learning potential, including opportunities for the emotional experiences that are critical for schema change.

2.3.1. Schema change component

The integral schema change component adapts the techniques of schema therapy for people with BPD developed by Young (Young, 1990; Young et al., 2003) to a group modality and adds structured homework assignments, group exercises and kinesthetic and experiential awareness exercises (Farrell & Shaw, 1994). Schemas are psychological constructs that include beliefs that we have about ourselves, the world and other people, which are the product of how our basic childhood needs were dealt with. They are comprised of memories, bodily sensations, emotions and cognitions that develop during childhood and are elaborated through a person's lifetime. Schemas may be extremely inaccurate, dysfunctional and limiting, but they are strongly held and frequently not in the person's conscious awareness. Schema therapy draws from learning theory principles, developmental psychology and a variety of experiential therapies. The focus is on identifying and changing maladaptive schemas and their associated ineffective coping strategies. The schema change component employed in this group treatment program focuses on decreasing the hold of negative schemas at least enough to allow patients to use the skills they learn in treatment to keep them alive and improve their functioning in the world. The major schemas focused on include: defectiveness/shame, social isolation and undesirability, mistrust/abuse, dependence/incompetence, unrelenting standards and subjugation.

Schema change requires both cognitive and experiential work. Cognitive schema change work employs basic cognitive behavioral techniques to identify and change automatic thoughts, identify cognitive distortions, and conduct empirical tests of the person's maladaptive rules about how to survive in the world that have developed from schemas. Experiential work includes work with visual imagery, gestalt techniques like the "empty chair", creative work to symbolize positive experiences, limited re-parenting and the healing experiences of a validating psychotherapist. Behavioral pattern breaking work is employed as well, to ensure that therapeutic changes generalize to behavior outside of the therapy setting.

2.3.2. Therapist style

Therapist style models that of individual schema therapy by establishing an active, supportive and genuine relationship that provides a safe environment for the patient to be vulnerable and express

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emotions. The theory is that patients did not have core emotional needs met by caregivers, and this led to the development of coping strategies that continue in adulthood and limit healthy adult functioning. The therapist's provision of limited, or adaptive, re-parenting allows the patient with BPD to fill in critical early gaps in emotional learning like attachment and autonomy and to feel valued and worthy. Initially, the therapist tries to compensate for these deficits within the limits of appropriate professional boundaries and ultimately fosters the patient learning to care for her or his own needs in an effective manner and attain autonomy and healthy interpersonal functioning. Limited re-parenting is accomplished in part by the experience of acceptance, validation, and support from psychotherapists. This experience is healing to a patient's damaged sense of self, self-hatred and hopelessness. Some adaptations of individual therapist style are necessary when conducting group treatment. These include: the need to focus on and balance the collective need of the group as a parent would for a group of siblings. Group re-parenting may be a closer approximation to patients' developmental experience unless they were only children. This closer match with the early environment has the potential to provide additional schema healing experiences.

The manual for the treatment provides structure in a format for sessions that consists of: discussion of homework from the previous session, presentation of new information, discussion with opportunity for questions and answers, experiential or cognitive work, and assignment of homework. The format also allows for individualization based upon the composition and schema issues of each unique group. A treatment manual aids adherence and facilitates replication at other sites. To insure treatment integrity, co-therapist teams were used. Two of the three groups had the two program developers as therapists and the third had one developer and one clinical psychologist trained by observing a full group cycle. Weekly supervision meetings took place during the course of the study and random videotapes of sessions were reviewed for fidelity by the program developers. The manual developed for the study acted as an additional fidelity check.

3. Results

Of the 32 patients who began treatment, four subjects in the control group completed pre-test assessments but were lost to follow-up (Fig. 1). This left 16 treatment group members and 12 control group members. There was a 100% retention rate over 14 months in the treatment group, and there was a 75% retention rate for the control group. The difference failed to reach significance, $p = .10$, Fisher-exact test, two-tailed. Overall, the retention rate for the study was 88%.

Fig. 2 shows the means of the four outcome measures for the two groups at the three assessment points. At baseline, differences between the groups were N.S. (Table 2). As hypothesized, at the end of the SFT-group treatment, ANCOVA with baseline as covariate demonstrated that there was a significant difference between the groups in favor of the SFT-group condition (Table 2). Specifically, the treatment group had significantly lower scores at the end of thirty sessions of SFT-group psychotherapy on both measures of BPD symptoms (BSI and DIB-R) and on global severity of psychiatric symptoms (SCL-90); and had higher scores on global functioning (GAFS from individual psychotherapists). On all measures, this positive treatment effect was maintained or even increased at the six-month follow-up (Table 2).

An additional ANCOVA was conducted to examine the subscale scores of the DIB-R. Table 3 presents the subscale results at baseline, posttest and six-month follow-up. There were no significant differences between the SFT and TAU groups on any subscale at baseline. At both posttest and follow-up points, the SFT-group had significant improvement on all subscales compared to the TAU group.

When baseline scores were compared to post-treatment scores, the improvement on all measures was significant for the SFT-group, but not for the TAU control group (Table 4). This improvement was maintained or strengthened from post to six-month follow-up for the treatment group. The lack of significant improvement in the control group was also maintained at six-month follow-up. The TAU group showed little improvement, or even some deterioration, over the fourteen months of the study. Table 5 presents the within-group effect sizes, which are very large for SFT, and virtually zero for TAU.

The improvements in the treatment group were clinically significant as well. The mean score post-treatment on the BSI was below the threshold on that measure for the presence of BPD, indicating remission, while the control group mean remained well above the threshold. After treatment, 15 of the 16 (94%) active arm subjects no longer met BSI criteria for BPD while 11 out of 12 (92%) of control group

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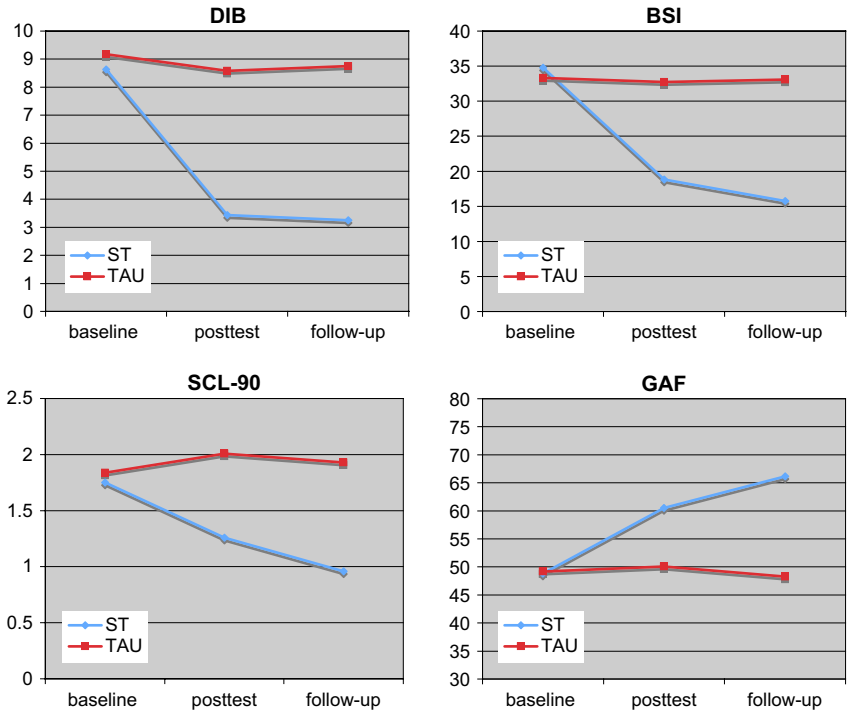

Fig. 2. Means of the outcome measures by group and time.

subjects still met criteria for a BPD diagnosis, a highly significant difference, χ^2 (1, $N = 28$) = 20.43, $p < .001$, OR = 165 (95%CI = 9.27, 2936). Furthermore, on the DIB-R, the treatment group mean was below the threshold for being given a BPD diagnosis, and the same 15 (94%) subjects would no longer be diagnosed with BPD, while the control group mean remained above threshold, and 75% of the control subjects would still be diagnosed with BPD, χ^2 (1, $N = 28$) = 14.12, $p < .001$, OR = 45 (95%CI = 4.04, 501). At six-month follow-up, no treatment group patient met criteria for a BPD

Table 2
Means and SDs of the outcome measures by group and time, and analysis of (co)variance results.

Measure	Baseline	Posttest	6-m follow-up	Baseline			Posttest[a]			6-m follow-up[a]		
	Mean SD	Mean SD	Mean SD	F(1, 26)	p	d[b]	F(1, 25)	p	d[b]	F(1, 25)	p	d[b]
BSI												
SFT&TAU	34.75 (7.67)	18.81 (9.47)	15.75 (9.10)	.32	.58	.22	23.78	<.001	1.97	48.20	<.000	2.81
TAU	33.33 (4.77)	32.75 (5.90)	33.08 (4.56)									
DIB-R												
SFT&TAU	8.63 (1.41)	3.44 (2.76)	3.25 (2.79)	1.33	.26	.46	30.18	<.001	2.22	35.86	<.000	2.42
TAU	9.17 (.94)	8.58 (1.51)	8.75 (1.29)									
SCL-90												
SFT&TAU	1.75 (.54)	1.26 (.60)	.96 (.47)	.11	.75	.13	11.21	.001	1.35	29.71	<.000	2.20
TAU	1.84 (.86)	2.01 (.79)	1.93 (.72)									
GAF												
SFT&TAU	48.81 (7.04)	60.50 (10.17)	66.19 (7.51)	.02	.89	.06	11.85	.002	1.39	60.00	<.000	3.13
TAU	49.17 (5.78)	50.08 (5.07)	48.25 (5.29)									

[a] Analysis of covariance with baseline as covariate. All group by covariate interactions were N.S. (F's < 1.0; p's > .39) and were therefore left out of the model.

[b] Cohen's d (between-group effect size of the F-test), with positive d indicating superior effects of SFT&TAU compared to TAU.

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Table 3
Means and SDs of the DIB-R subscales by group and time, and between-group analysis of (co)variance results.

DIB-R Subscale	Baseline		Posttest		6-m follow-up		Baseline		Posttest[a]		6-m follow-up[a]	
	Mean	SD	Mean	SD	Mean	SD	F(1, 26)	p	F(1, 25)	p	F(1, 25)	p
Affect												
SFT&TAU	9.88	.34	5.88	3.44	5.75	3.55	.06	.81	15.22	.001	11.70	.002
TAU	9.83	.58	9.83	1.12	9.25	.87						
Cognition												
SFT&TAU	3.19	1.94	1.69	2.02	1.50	1.97	2.27	.14	11.73	.002	14.47	.001
TAU	4.25	1.71	4.25	1.49	4.33	1.61						
Impulses												
SFT&TAU	5.94	1.48	1.56	1.37	1.56	2.07	1.65	.21	24.69	<.001	22.36	<.001
TAU	6.75	1.87	5.58	2.68	6.00	2.52						
Interpersonal												
SFT&TAU	11.38	3.01	4.88	4.02	5.13	3.48	.56	.46	28.59	<.001	23.95	<.001
TAU	12.17	2.44	12.00	2.80	11.33	2.87						

[a] Analysis of covariance with baseline as covariate.

diagnosis on the DIB-R, while the number in the control group meeting BPD criteria increased to 83%, χ^2 (1, $N = 28$) = 17.08, $p < .001$, OR = 75 (95%CI = 5.97, 941).

The mean improvement in global functioning for the treatment group was 12 points post-treatment and 16 points at six-month follow-up. Increases in GAF scores of this magnitude reflect a clinically meaningful enhancement of global functioning. The mean score for the treatment group changed from *serious symptoms* to *mild symptoms* while the control group moved only one point up at post and one point down at six-month follow-up, thus remaining in the *serious symptoms range*.

4. Discussion

Thirty sessions of group-SFT added to weekly individual psychotherapy produced statistically and clinically significant improvements on all outcome measures in female outpatient with BPD. No significant differences were present initially between the treatment and control groups on any symptom measure. Meaningful reductions in impulsive and self-injurious behavior and decreased self-hatred, loneliness and emptiness were reported by many treatment group subjects 2–3 months into the eight months of treatment. Significant decreases in symptoms and improved function were apparent at the end of treatment and a trend toward further improvement from post-treatment to six-month follow-up was present.

Whereas the improvements in the SFT condition were impressive and clinically meaningful, no significant changes were observed in the TAU control group receiving only continuing weekly individual psychotherapy "as usual" in the community. This lack of positive effect may be the result, in part, of the absence of BPD specialization in the individual psychotherapy available at the time in the community. It also indicates that our sample was severely and chronically disturbed, with no evidence

Table 4
Within-group *t*-tests of changes with respect to baseline (positive signs indicate improvement).

Measure		Posttest		6-m follow-up	
		t(15 or 11)	p	t(15 or 11)	p
BSI	SFT	6.11	<.001	8.13	<.001
	TAU	.44	.67	.31	.76
DIB-R	SFT	7.58	<.001	6.76	<.001
	TAU	1.40	.19	1.24	.24
SCL-90	SFT	3.36	.004	6.41	<.001
	TAU	−.97	.35	−.56	.59
GAF	SFT	4.71	<.001	8.49	<.001
	TAU	.48	.64	−.64	.54

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Table 5
Effect sizes using pooled SDs at baseline and mean change scores per condition (a positive sign indicates improvement).

Treatment group	BSI		DIB-R		SCL-90		GAF	
	SFT	TAU	SFT	TAU	SFT	TAU	SFT	TAU
Posttest	2.48	.09	4.29	.49	.72	−.25	1.80	.14
Follow-up	2.96	.04	4.45	.35	1.17	−.13	2.67	−.14

of spontaneous recovery or recovery by nonspecific attention, in contrast to other findings (Zanarini, Frankenburg, Hennen, & Silk, 2003). We only analyzed the data of patients that completed the posttest. However, a last observation carried forward procedure to estimate the missing values of the four patients in the control group that dropped out would not lead to different conclusions given the lack of meaningful change in the control group.

Although much progress has been made in the development and availability of treatments for BPD in the last fifteen years, available approaches have demonstrated differential effectiveness for various symptoms. Self-injurious behavior, suicidal behavior, and impulsivity are the symptoms treated most effectively and by the largest number of treatments. However, mood, quality of life issues, and global functioning are treated less successfully by most treatments. The DIB-R yields subscale score in the four areas of BPD psychopathology – affect features, cognitive features, impulsive features and interpersonal features. The specific symptoms assessed for each subscale are as follows:

1. Affect: the chronic experience of – major depression, hopelessness/helplessness/worthlessness /guilt, anger/frequent angry acts, anxiety, loneliness/emptiness.
2. Cognition: odd thoughts/unusual perceptual experiences, nondelusional paranoia, quasi-psychotic experiences.
3. Impulse: substance abuse/dependence, sexual deviance, self-mutilation, manipulative suicide attempts, other impulsive patterns.
4. Interpersonal: intolerance of aloneness, abandonment/engulfment/annihilation concerns, counter-dependency/serious conflict over help/care, stormy relationships, dependency /masochism, devaluation/manipulation/sadism, demandingness/entitlement, serious treatment regression.

The finding that significant improvement took place in all four of the subscale/symptom areas provides support for the assertion that group-SFT impacts all areas of BPD psychopathology. We chose the DIB-R because our treatment targets included affective experience and interpersonal function as well as injurious and potentially injurious impulsivity and suicidal behavior.

The clinical trial evidence presented here provides strong preliminary support for the contention that SFT-group treatment, in addition to decreasing all of the major areas of BPD symptoms and global severity of psychiatric symptoms, improves global functioning. The lack of change in the TAU control group receiving individual psychotherapy supports the assumption that the group treatment accounts for most positive changes in the treatment group.

The remarkable 100% retention rate in the SFT-group in this trial is quite notable for this clinical population and may be attributable to a number of factors. First, the treatment was designed specifically to meet the needs of BPD patients, aiming to be very validating. Second, the therapists had considerable experience with patients with BPD and likely conveyed a broad sense of hope and optimism about the treatment program. Third, the effectiveness of the treatment reinforced patients' continuing participation. Indeed, it was apparent from anonymous post-treatment evaluations that patients did experience the group therapy approach as validating and supportive. The sense of belonging derived from a homogeneous diagnostic group was felt to be rewarding. The 75% retention rate for the control group is also quite high, given that they were not compensated financially for completing assessments. The medical school setting is highly rated by the community, which added motivation to participate. It has been our experience that patients with BPD are motivated to participate in research to add to knowledge about BPD in order to help others like them.

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The SFT-group program evaluated here attempts to supply needed foundation skills in emotional awareness and distress management, combined with the essential schema change work that allows application of these skills. The schema change component of this treatment and the adaptive re-parenting therapist interventions that run through all components of the treatment are what distinguish this approach to BPD psychotherapy from other cognitive behavioral approaches, such as dialectical behavioral therapy. We see schema change as an essential part of treatment for people with BPD that will allow them to be free from the internal barriers that prevent them from using their improved coping or interpersonal skills to improve their quality of life. An individual must have some belief in her own basic worth and agency to take action that is in her best interest. We think that teaching skills to this group of patients without addressing these barriers to application will prove to be of limited effectiveness in producing improved function. Lack of improved function is something that has plagued the outcome studies of many current skills-based treatments.

Currently, there is a largely consumer-driven movement to find treatment that can move patients with BPD beyond symptomatic remission to the next phase of recovery – a meaningful life, with a positive sense of identity, healthy relationships, and employment that matches ability level. Freedom from life-threatening behavior is a necessary, but not sufficient, goal of successful psychotherapeutic treatment. These goals are consistent with those of SFT, which goes beyond teaching coping skills to address the emotional learning deficits of BPD patients at the experiential, affective level as well as the cognitive level. This comprehensive approach helps patients build autonomous, healthy adult functioning and can lead to remission from BPD. While the DIB-R does measure all areas of BPD psychopathology, admittedly, we did not assess healthy adult functioning with validated instruments. However, this effect of SFT was assessed and confirmed in other studies (Giesen-Bloo et al., 2006; Van Asselt et al., 2008). Future studies of group-SFT should include explicit assessment of healthy functioning.

We found that using a group modality presented some advantages with regards to the SFT mechanism of action and the particular schema issues of BPD patients. The limited re-parenting of SFT is accomplished, in large part, by the experience of acceptance, validation, and support from psychotherapists. This experience is healing to a patient's damaged sense of self, self-hatred, and hopelessness. A psychotherapy group that provides acceptance and validation can amplify the schema healing process. Patients sometimes accept peer responses as "more genuine" than the responses of professionals who they may believe "have to respond positively". Another benefit of the group format for SFT is the addition of "siblings" to the re-parenting work, creating a whole family unit dynamic. In addition, the group curative factors of universality, belonging, and acceptance are harnessed. These aspects of group are all of particular significance for the schema issues of patients with BPD, including defectiveness/shame, abandonment, and mistrust/abuse. At the end of this treatment, when asked "What was most helpful about the group therapy program?", the most frequent answer was "being in a group of people like me". They reported that this was the "first time (they) felt a sense of belonging or acceptance", that they were "not alone" and "not crazy" (i.e. defective). The group itself can play an important curative role in the treatment of patients with BPD if it is structured to avoid the invalidating, schema perpetuating experiences of the family of origin and offers opportunities for bonding, learning, healing, developing autonomy and practicing healthy adult skills. This time-limited group can give BPD patients literally a base, or foundation, for the additional treatment they need to have a good quality of life.

A recent development in SFT is the use of schema modes in the therapy (Kellogg & Young, 2006; Arntz, 2004; Young et al., 2003). Whereas this concept has already been tested outside treatment (e.g., Arntz, Klokman, & Sieswerda, 2005; Lobbestael, Arntz, & Sieswerda, 2005; Lobbestael, van Vreeswijk, & Arntz, 2008) and as part of individual therapy (Giesen-Bloo et al., 2006), a formal test of mode-based group-SFT is needed. Our clinical impression is that schema-mode based SFT for BPD can be successfully applied in a group format.

The results of this study suggest that SFT can be effectively adapted to the group modality. SFT in groups is still in an early stage of demonstrating efficacy, but the large and significant treatment effects demonstrated in this trial suggest that this could be a cost effective treatment option that can be made available for those suffering from BPD across public health and private settings. The results of this study add to the growing evidence base supporting SFT as an effective treatment for BPD that can lead to both

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symptom reduction and improved global functioning and quality of life. The favorable cost-effectiveness evaluation of SFT adds another dimension to its value (Van Asselt et al., 2008). Further evaluation of this group model with a larger sample size at various sites and with strict monitoring of medication usage is warranted.

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