The Impact of Borderline Personality Disorder on Process Group Outcome among Women with Posttraumatic Stress Disorder Related to Childhood Abuse

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ABSTRACT

The outcome of a 12-week interpersonal process group therapy for women with postraumatic Stress Disorder (PTSD) related to childhood sexual abuse with and without borderline personality disorder (BPD) was assessed by comparing three naturally occurring treatment conditions: groups that did not have any members with borderline personality disorder (BPD-) (n = 18), groups in which at least one member carried the diagnosis (BPD+)(n = 16), and a 12-week waitlist (WL) (n = 15). PTSD, anger, depression, and other symptoms were significantly reduced in the BPD- groups. However, the BPD+ and WL conditions did not show any pre- to posttreatment improvements. Furthermore, the BPD+ condition showed a significant worsening on measures of anger. Analyses within the BPD+ condition indicated that women with and without the diagnosis experienced equal posttreatment increases in anger problems. These latter results suggest the presence of an anger "contagion" effect. That is, women without BPD did well in the BPD- groups but showed increased anger similar to the BPD+ women when treated in groups with them. Implications for client-treatment matching considerations in PTSD group therapy are discussed.

$\mathbf{A}$pproximately one fifth to one third of all women report a history of childhood sexual abuse (Alexander & Lupfer, 1987; Finkelhor, Hotaling, Lewis, & Smith 1990; Russell, 1983; Wyatt, 1985). Recent attention to this phenomenon has lead to systematic characterization of

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the central negative sequelae of childhood sexual abuse and concomitant efforts to develop effective treatment strategies. A consensus is emerging that childhood sexual abuse (CSA) is accurately conceptualized as a trauma and that it has as its core symptoms those defined within the diagnosis of posttraumatic stress disorder (PTSD) (Roth, Newman, Pelcovitz, van der Kolk, & Mandel, 1997). There are few empirical studies of treatment for women with a history of childhood sexual abuse. Several early reports established a compelling rationale for the use of group treatment, especially as a method of reducing feelings of stigma and social isolation, but are limited by the absence of one or more of the following: reliable measures, comparison groups, or statistical analyses (Goodman & Nowak-Scibelli, 1985; Herman & Schatzow, 1984; Hazzard, Rogers & Angert, 1993). The purpose of this study was to empirically assess the effectiveness of one of the most frequently used and studied group psychotherapies, interpersonal process group (Alexander, Neimeyer, Follette, Moore, & Harter, 1989; Courtois, 1988; Follette, Alexander, & Follette, 1991; Neimeyer, Harter, & Alexander, 1991; Yalom, 1975), for women with PTSD related to childhood sexual abuse.

Interpersonal process group (IPG) therapy has been tested and found effective for the treatment of women with a history of childhood sexual abuse. In a well-controlled and randomized clinical trial IPG was found to be superior to a waitlist in reducing depression, fearfulness, and general distress and was found to be superior to another active group treatment (interpersonal transaction) in terms of improved social adjustment, a significant problem in this population (Alexander et al., 1989). IPG remains the only group treatment for CSA with empirical evidence of superiority to another active treatment. However, the study was completed before the DSM-IV field trials had determined the central role of PTSD and thus did not assess the impact of this type of treatment on PTSD symptoms. One goal of the present study was to assess the effectiveness of IPG for PTSD symptoms. Childhood sexual abuse is a trauma that occurs in an interpersonal context and many PTSD symptoms are triggered or exacerbated by interpersonal cues and settings. Because this treatment focused on identifying and changing current maladaptive emotional reactions within interpersonal exchanges, it was hypothesized that IPG would be an effective treatment for PTSD.

It is of note, however, that many individuals with childhood sexual abuse are diagnosed with borderline personality disorder (BPD) (Johnson, Cohen, Brown, Smailes, & Bernstein, 1999), and that between 31% to 37% of treatment-seeking women with PTSD related to childhood

trauma also carry a comorbid diagnosis of BPD (Heffernan & Cloitre, 2000; Lubin & Johnson, 1997). This disorder is, by definition, associated with chronic problems with anxiety, depression, and, most particularly, expressing anger and maintaining good interpersonal relationships. Systematic treatment outcome research among veterans with chronic PTSD indicate that these types of problems are predictive of poor treatment outcome (Ford, Fisher, & Arson, 1997; Ford & Kidd, 1998; Funari, Piekarski, & Sherwood, 1991). Anger regulation deficits and consequent interpersonal difficulties have been identified as central problems in the effective treatment of veterans (Chemtob, Novaco, Hamada, Gross, & Smith, 1997). In addition, findings from a cognitive behavioral treatment of women with PTSD related to adult sexual assault revealed that problems with anger was a powerful predictor of diminished outcome (Foa, Riggs, Massie, & Yarczower, 1995).

These data converge to suggest that the presence of BPD might be contraindicated in a group treatment for CSA-related PTSD. However, this exclusion would mean barring a substantial proportion of the PTSD population from treatment. Some group therapy researchers have advised against the inclusion of individuals with BPD in group treatment of trauma survivors (Resick & Schnicke, 1993) and in process groups more generally (Yalom, 1995). In contrast, some authors have indicated that CSA process groups that include individuals with BPD work well because members of the group without BPD appear to act as role models and facilitate improvement in functioning for those with the disorder (Herman & Schatzow, 1984).

Given the divergent opinion of experts and the fact that the current treatment involves interventions that target central problems of individuals with BPD, the current study did not exclude women with the disorder. The purpose of this article is two-fold. First, we report on the effectiveness of IPG for women with CSA-related PTSD in four symptom domains: (1) PTSD symptoms, (2) emotional state problems, (3) interpersonal problems, and (4) anger problems. Second, we assess and report the impact of BPD membership on treatment outcome.

METHOD

Subjects

Subjects were recruited from local newspaper advertisements and word-of-mouth to participate in an assessment and treatment study of

women with a history of childhood sexual abuse located in the outpatient service of a private hospital in a large Northeastern urban setting. The study was ongoing for a period of 2.5 years. After a brief telephone screening, participants were scheduled for an intake appointment. Participants then completed the self-report questionnaires and received clinical interviews, including diagnostic interviews for at least two appointments. Selection criteria included: age 18 or older, victims of childhood sexual abuse, current PTSD, and willingness to participate in group treatment. Childhood sexual abuse was defined as the participant's report of at least one incident of sexual contact before the age of 18 (fondling; attempted or completed vaginal, oral, or anal intercourse) initiated by a family member, caretaker, or trusted adult. If the abuse was perpetrated by a sibling or approximate age peer (e.g., babysitter), the perpetrator either had to be 5 years older than the participant or the participant had to indicate that the event occurred against her wishes. Exclusion criteria included: current psychosis, mental or organic impairment; active alcohol or drug abuse; active suicidality; the presence of a recent (less than 3 months) adult sexual assault; and the presence of a recent (less than three months) psychiatric hospitalization. Study subjects were neither charged nor paid for participating.

Of the 60 women accepted into treatment, 11 dropped out of the study. Nine of the dropouts had been assigned to a group and never attended or had started a group and dropped out by the end of session 2. Two of the dropouts were women on the waitlist who were not locatable upon follow-up. Among the dropouts, 7 had been diagnosed with BPD (6 from active treatment and 1 from waitlist) and 4 had not (3 from active treatment and 1 from waitlist). There were no significant differences between completers and dropouts on any sociodemographic or abuse characteristics, nor did the groups differ on any pretreatment measure. Reasons for dropping out varied. Among the active treatment dropouts, one client relocated to another city due to family illness, six others did not like the treatment or did not find it useful, and two did not give any reason and/or did not return phone calls. The two dropouts from the waitlist did not return phone calls. Attendance at treatment was high. Participation in the treatment required missing no more than three sessions, otherwise the member would be referred to another treatment. No member met that criterion.

The study involved the outcome assessment of the 49 women who completed treatment in one of three conditions. Treatment condition was defined according to group membership following dropouts. The

three naturally occurring conditions were: (1) women in interpersonal group treatments in which no one had BPD (IPG/BPD-) (n = 18), (2) women in groups that had at least one member with BPD (IPG/BPD+) (n = 16), and women on the waitlist (WL) (n = 15). There were four groups in the BPD- condition (which, in consecutive order, were groups 1, 3, 7, 8), and four treatment groups in which one or more individuals had BPD (groups 2, 4, 5, 6). The number of members in each group in the BPD- condition were 6, 4, 3, and 5. The number of women in the groups for the BPD+ condition including (in parentheses) the number of BPD-positive members were 5 (1 BPD), 4 (1 BPD), 4 (2 BPD), and 3(1 BPD). The 15 women in the WL condition (6 with BPD) were individuals who, as a result of scheduling, time constraint or other practical problems were not able to enter treatment for 12 weeks or more. After a second evaluation, they were offered membership in the next available therapy group.

Treatment

Therapists. Treatment was conducted by six female therapists with master's or doctoral degrees in psychology or clinical social work who were trained specifically for this project. Each group was led by two cotherapists. A single supervisor (the first author—MC) supervised all the groups. Supervision was conducted weekly on a session-by-session basis with each pair of cotherapists. Therapists were blind to the quantitative assessment data collected on the subjects.

Group Therapy Procedure. This 12-session group treatment was based on the writings of Courtois (1988; Courtois & Leehan, 1982) and Yalom (1975, 1995). These texts were adapted for use in a PTSD population and served as a manual for the therapists. Sessions were weekly and lasted 90 minutes. The treatment followed the basic principles of group process (Yalom, 1975, 1995) in the use of a focus on here-and-now processing of relationships among group members and with cotherapists, enabling members to work through problematic relationship dynamics. Specification of group size, particular interventions, and session themes (as described below), were derived from Courtois.

In the first session, participants introduced themselves and briefly described in three to four sentences a summary of their abuse history, identifying what type of abuse they had experienced, by whom, and for how long. This intervention was intended to bring forward, normalize, and de-stigmatize the commonality among group members: having been sexu-

ally abused. The remainder of session 1 and all of session 2 was devoted to group rules and structure; psycho-education about group process, posttraumatic stress disorder and other long-term consequences of childhood sexual abuse (mood problems, anger expression difficulties, and interpersonal problems); and the rationale for the treatment. Treatment was described as being focused in the here and now, with the goal of understanding how the past influences the present and finding ways of changing automatic emotional reactions and behaviors that, while once adaptive in an abusive home environment, were interfering with present life goals.

The bulk of the treatment, in the next three to nine sessions, focused on interpersonal problems associated with sexually victimized women. These included: problems with maintaining physical safety and experiencing feelings of safety when appropriate (session 3); problems with experiencing a sense of trust within the group and trusting their own perceptions and judgments (session 4); and problems with assertiveness and appropriate mastery and control of the environment and their own feelings (sessions 5-9). Processing of relationships among group members and with cotherapists provided the material for discussion for all the above issues, as did examples from day-to-day life. Members also identified and shared coping strategies that they had found to be effective with these problems. Sessions 10 to 12 focused on termination: achievements in the group, targets for continued work, and feelings about the group meetings ending. The last session included a celebration of the completion of treatment with food and beverages.

Measures

Trained clinical interviewers administered the assessment measures at baseline and posttreatment. This assessment was conducted by an evaluator blind to treatment condition within two weeks posttreatment. Trauma histories were collected using The Childhood Maltreatment Interview Schedule (Briere, 1992) a 193-item instrument that gathers information about parental, emotional, physical, and sexual abuse and neglect. Interrater reliability (Kappa) on a subset of ten interviews for selected variables were as follows: sexual abuse by father figure = 1.00, extent of sexual abuse (frequency and duration) = .56, physical abuse by mother figure = .80.

Psychiatric diagnoses. PTSD and other Axis I psychiatric diagnoses were determined by the Structured Clinical Interview for the DSM-III-R (SCID

I) (Spitzer, Williams & Gibbon, 1987) and borderline personality disorder was assessed using the BPD module of the SCID II (Spitzer, Williams, Gibbons, & First, 1989).   These are semistructured clinical interviews with well-documented psychometric properties (Spitzer, Williams, & Gibbons, 1987). Kappas on a subset of ten assessments were 1.00 for PTSD and 1.00 for BPD.

PTSD Symptoms. The Posttraumatic Stress Disorder Symptom Scale (PSS-SR) (Foa, Riggs, Dancu, & Rothbaum, 1993) is a 17-item self-report inventory that assesses the frequency and severity of PTSD symptoms corresponding to the diagnostic criteria listed in the DSM-III-R modified for DSM-IV.

Emotion-Related Problems. Emotional state was measured by assessing severity of anxiety using the State Anxiety Inventory (STAI) (Spielberger, Gorsuch, & Luchene, 1970), depression using the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock & Erlbaugh, 1981), and general distress using the General Severity Index of the Brief Symptom Inventory (BSI) (Derogatis, 1983).

Interpersonal Problems. Two subscales, assertiveness (not assertive enough) and control (too controlling), were used from the Inventory of Interpersonal Problems (IIP) (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). These subscales reflect two central problems in interpersonal functioning among women with childhood abuse. Together they reflect problems in modulating power dynamics in relationships (Cloitre, Scarvalone, & Difede, 1997; Finkelhor & Browne, 1985) and were targeted for treatment.

Anger Problems. Three subscales of the State-Trait Anger Expression Inventory (STAXI) (Spielberger, 1991) were used in this study: anger-in (AX/In), which evaluates the tendency to hold in angry feelings; anger-out (AX/Out), which evaluates the tendency to express feelings in an outward and negative fashion (e.g., in verbal or physical aggression); and anger expression (Ax/Ex), which evaluates the frequency with which anger is experienced and is a composite of anger-in, anger-out, and a third subscale, anger-control, which assesses the ability to control angry feelings.

Data Analyses

Differences in effectiveness among the three treatment conditions were assessed using a nested design in which the individual groups were nested

within the treatment condition. This allowed for the assessment of the effects of particular groups (e.g., chronological order, unique co-therapist-client cohort matches) and their interactions. The waitlist condition subjects were randomly assigned to four hypothetical groups within the waitlist condition. Dependent measures were divided into four categories: PTSD symptoms (PSS-SR), emotion-related symptoms (BDI, STAI, BSI-General Severity Index), interpersonal difficulties (IIP-Assertiveness, IIP-Control), and anger (STAXI: anger-in, anger-out, anger-expression). Repeated measures multivariate analysis of variance (MANOVA) with individual groups nested within group condition were conducted for each of the categories of measures at two points in time (pretreatment, posttreatment) across the three treatment conditions (IPG/BPD-, IPG/BPD+, and WL) or two treatment conditions (IPG/BPD-, IPG/BPD+), depending on the measure. The decision to conduct omnibus tests on groups of measures by category to control for Type I error follows the suggestion of Hummel and Sligo (1971). Post hoc simple effect analyses were conducted when significant treatment condition by time interactions were identified. Matched-pairs t tests were conducted for each treatment condition to determine significant improvement in symptom levels from pre- to posttreatment. Tukey's HSD test was used to determine if treatment conditions differed on symptom measures at pre- or posttreatment. Given the exploratory nature of this study, analyses were not further adjusted for Type I error.

RESULTS

Demographic Characteristics

The three groups did not differ in age, employment, or marital status. The mean age of the sample was 34.73 years (SD = 10.47). Sixteen percent had a high school degree or less, 51% had some college or were college graduates, and 33% had postgraduate education. The majority (63%) was employed full- or parttime, with the remainder unemployed or disabled. Seventy-three percent were single, separated, divorced, or widowed and 27% were married or living with someone. Twenty-nine percent had children. Racial composition was 57% Caucasian, 16% African American, 17% Hispanic, and 10% Asian and other minority. Chi-square analyses revealed differences in the ethnic composition of the groups $X2(6, N = 49) = 12.86, p < .05$], with fewer African American and Hispanic women in the IPG/BPD+ group. Thus, ethnicity was included as a covariate in all analy-

ses involving group differences. No significant effects were obtained and thus they were not included in the presentation of results.

The three groups also did not differ with respect to childhood abuse characteristics. Across the three groups, 42% of women identified the perpetrator of sexual abuse as their father/stepfather, 2% as their mother, 8% as a sibling, 32% as another trusted adult in the family, and 16% as a trusted adult outside the family. Severity of abuse ranged from mild-fondling with clothes (16%); moderate-fondling without clothes (33%); and severe-any type of penetration (51%). Forty-three percent of the women reported having experienced physical abuse by either their mother/stepmother or father/stepfather. In addition, 57% reported revictimization in childhood; that is, the presence of at least one additional sexual assault before the age of 18 by someone other than the primary perpetrator. In regard to clinical characteristics, the three groups did not differ at pretreatment on any symptom measure (see Table 1).

Pre- to Posttreatment Effects

PTSD Symptoms. Table 1 lists the main results of the study. A repeated measures analysis of variance (ANOVA) for PTSD revealed that there was no effect for Treatment Condition, Group within Treatment Condition, or interaction between Group within Treatment Condition by Time. There was however, a significant main effect for Time, which was modified by a Treatment Condition by Time interaction. Pairwise comparisons indicated that this interaction reflected improvement occurred only for the IPG/BPD- condition, while the other two conditions stayed the same.

Emotion-Related Symptoms. The MANOVA for emotion-related symptom measures revealed no significant main effect for Group within Treatment Condition and no significant interaction for Group within Treatment Condition by Time. However, there was a significant main effect for Time ($p < .001$). Follow-up univariate *F*-tests indicated that there was a significant main effect for Time on the BDI, STAI, and BSI-General Severity Index which for the latter two measures was modified by a Treatment Condition × Time interaction. For the BDI the interaction approached significance (see Table 1). For the STAI and BSI-General Severity Index, the IPG/BPD- group showed improvement pre- to posttreatment while the other two conditions showed no change.

Interpersonal Problems. For interpersonal measures, only the interaction of Treatment Condition × Time ($p < .02$) was significant in the

Table 1. Pre- and Posttreatment Means and Standard Deviations by Condition

Variable	IPG/BPD-group (n = 18)		IPG/BPD + group (n = 16)		WL group (n = 15)		ANOVA treatment × time interaction effect	
	M	SD	M	SD	M	SD	F(2,37)b	p
PSS-SR							3.86	.03
Pretreatment	66.79	21.51	62.41	24.88	70.75	25.90		
Posttreatment	44.72	27.02	57.63	20.71	61.69	23.74		
Significant change[a]	+		0		0			
BDI							2.99	.06
Pretreatment	20.50	7.69	18.06	7.42	23.47	8.64		
Posttreatment	11.92	9.34	16.25	8.97	19.87	9.30		
Significant change[a]	na		na		na			
STAI							13.45	.001
Pretreatment	55.17	8.62	50.13	12.45	51.14	12.17		
Posttreatment	38.78	9.48	51.19	9.18	49.21	10.33		
Significant change[a]	+		0		0			
BSI-GSI							4.89	.01
Pretreatment	1.71	.67	1.42	.66	1.52	.72		
Posttreatment	1.09	.66	.58	1.19	1.54	.90		
Significant change[a]	+		0		0			
IIP Assertiveness							3.44	.05
Pretreatment	2.01	.93	1.96	.72	1.47	.64		
Posttreatment	1.65	1.01	1.97	.63	1.51	.58		
Significant change[a]	+		0		0			

Variable	IPG/BPD- group (n = 18)		IPG/BPD + group (n = 16)		WL group (n = 15)		ANOVA treatment × time interaction effect	
	M	SD	M	SD	M	SD	$F_{(2,37)}$b	p
IIP Control							2.37	.10
Pretreatment	1.14	1.01	1.32	.66	.91	.69		
Posttreatment	.92	.72	1.47	.73	1.00	.57		
Significant change[a]	na		na		na			
Anger-In[b]							.28	.87
Pretreatment	19	4.2	20	4.6				
Posttreatment	18	4.9	22	3.5				
Significant change[a]	0		0					
Anger-Out[b]							7.56	.01
Pretreatment	15	3.6	14	4.3				
Posttreatment	13	2.7	16	2.2				
Significant change[a]	+		–					
Anger-Expression[b]							9.29	.007
Pretreatment	28	10.7	26	7.0				
Posttreatment	25	8.6	31	6.4				
Significant change[a]	+		–					

Note. IPG/BPD- = Interpersonal Process Group Therapy without Borderline Personality Disorder Patients; IPG/BPD+ = Interpersonal Process Group Therapy with Borderline Personality Disorder Patients; PSS-SR = Posttraumatic Stress Disorder Symptom Scale; BDI = Beck Depression Inventory; STAI = State Anxiety Inventory; BSI-GSI = Brief Symptom Inventory-General Severity Index; and IIP = Inventory of Interpersonal Problems.

[a]Significant pre- to posttreatment change within condition: + = improvement; 0 = no change; - = deterioration; na = not applicable. [b]For anger analyses. $df = 1,17$.

MANOVA. Follow-up univariate F tests indicated the interaction of Treatment Condition by Time was significant on IIP-Assertiveness but not for the IIP-Control. Simple effects analyses for IIP-Assertiveness revealed a significant improvement for the IPG/BPD- groups but not for the other two groups.

Anger Measures in the Active Treatments. Data on the STAXI were collected at both pre- and posttreatment only on the active treatment groups. Thus, the following analyses concern change in anger status pre- and posttreatment for the active treatment conditions. A MANOVA including anger-in, anger-out, and anger-expression revealed that there was no main effect for Time, Treatment Condition, Group within Treatment Condition, or interaction of Group within Treatment Condition by Time. However, the Treatment Condition × Time interaction approached significance ($p = .06$). Follow-up univariate F tests indicated significant Treatment × Time interactions for anger-expression, $F(1, 17) = 9.29$, $p = .007$, and for anger-out, $F(1, 17) = 7.56$, $p < .01$, but not for anger-in. These interactions were a result of decreases in anger-expression and anger-out in the IPG/BPD- group and an opposite effect, namely increases in anger, in the IPG/BPD+ group (see Table 1).

Effect Size Indices

Treatment effects also were examined by calculating effect sizes for each of the three treatment conditions. As defined by Cohen (1992), effect size represents the presence of clinically observable change, where values of .20 or less are considered small, .50 medium, and .80 or more as large. Effect size was calculated by the mean change (difference score) pre- to posttreatment, divided by the population standard deviation (Cohen, 1992). In this study, mean change was calculated in accordance with each measure so that positive values represent clinically observable improvement and negative values represent clinically observable deterioration. These data are displayed in Table 2.

To assess treatment outcome if we were not to take into account the presence of a BPD diagnosis, we first calculated the effect sizes of the active treatment groups combining individuals from both the IPG/BPD- and the IPG/BPD+ groups. The effect sizes for measures in this calculation ranged from negligible to moderate (.01 to .70), a finding similar to that of the waitlist. However, when effect sizes were completed separately for the two active treatment conditions, the clinically observable

Table 2. Effect Sizes for Outcome Measures by Group

Variable	Total for active treatments (*n* = 34)	IPG/BPD– group (*n* = 18)	IPG/BPD+ group (*n* = 16)	Waitlist (*n* = 15)
PSS-SR	.56	.94	.17	.59
BDI	.56	.96	.21	.23
STAI	.56	2.07	–.10	.34
BSI-GSI	.70	.99	.39	–.03
IIP Assertiveness	.31	.60	–.03	–.09
IIP Control	.19	.39	–.18	–.15
Anger-In	–.10	.63	–.62	—
Anger-Out	.01	.55	–.51	—
Anger-Expression	.002	.60	–.68	—

Note. IPG/BPD– = Interpersonal Process Group Therapy without Borderline Personality Disorder Patients; IPG/BPD+ = Interpersonal Process Group Therapy with Borderline Personality Disorder Patients; PSS-SR = Posttraumatic Stress Disorder Symptom Scale; BDI = Beck Depression Inventory; STAI = State Anxiety Inventors; BSI-GSI = Brief Symptom Inventory-General Severity Index; and IIP = Inventory of Interpersonal Problems.

changes occurring within each group were quite distinct, with the IPG/BPD- group showing moderate to strong improvement on all measures while the IPG/BPD+ group showed either no observable change or minimal to moderate deterioration. Effect sizes calculated for the anger measures to assess the relative difference in outcomes between the two active treatments, indicated moderate improvement for the IPG/BPD-groups and moderate deterioration in anger-out and anger-expression in the IPG/BPD+ groups.

BPD Status and Treatment Outcome Within the IPG/BPD+ Condition

We wished to determine whether the lack of improvement in the IPG/BPD+ groups was attributable solely to the individuals with BPD, and whether those without the diagnosis showed improvement as was observed among women without BPD in the IPG/BPD- groups. Repeated measures ANOVAs were conducted to explore possible differences between women with and without the diagnosis in the IPG/BPD+ groups at pre- and posttreatment. The results of these analyses indicated that neither BPD+ nor BPD- women showed any significant improvement on measures of PTSD, emotional state, or interpersonal functioning. However, a main effect of Time was obtained for anger-expression ($F(1, 10)$ =

6.04, $p < .05$) but not an interaction effect. This reflects a significant increase in anger in both the BPD+ and BPD- women. The BPD+ women scored a mean of 27.25 ($SD = 4.79$) at pretreatment and 32.30 ($SD = 2.56$) at posttreatment. Similarly, the BPD- women scored 25.06 ($SD = 8.12$) at pretreatment and 27.63 ($SD = 6.40$) at posttreatment. Because the sample size was small for these analyses, the data were visually inspected to identify possible outliers (extremely high scorers) who could have skewed the results in the direction of increased anger in either group. No outliers were detected. In addition, uniformity of the direction of change in anger scores was assessed. Increase in anger was a uniform phenomenon: 4 out of 5 women with BPD and 9 out of 11 women without BPD showed an increase in anger-expression.

BPD Symptoms as Predictors of Treatment Outcome

BPD diagnosis at pretreatment was associated with an increase in the BSI-General Severity Index at posttreatment after controlling for pretreatment scores, $r(34) = .41$, $p = .02$). BDP status was not associated with any other symptom outcome. The total number of BPD symptoms did not correlate significantly with pretest-adjusted posttreatment scores on any measure.

DISCUSSION

Interpersonal process group psychotherapy was associated with significant improvement in women with childhood sexual abuse who participated in groups in which no one received the diagnosis of Borderline Personality Disorder (IPG/BPD-). Participants in these groups showed significant reductions in PTSD and the three other targeted symptom domains (emotion-related problems, interpersonal problems with assertiveness, and anger problems). In contrast, waitlist and IPG/BPD+ groups showed no significant improvement in any of these symptom domains. Furthermore, compared to the WL and IPG/BPD- conditions, participants in IPG/BPD+ groups actually deteriorated in some respects, showing a significant increase in the frequency of anger problems and being more likely to express this anger in an outward and negative fashion. There has long been anecdotal speculation concerning the impact of personality profiles among members in a group treatment. This study has identified specific Axis-II related outcome differences in a group treatment for women with a history of childhood sexual abuse.

Effect sizes were calculated to assess clinically observable changes occurring pre- to posttreatment. When the active treatment outcome was assessed without taking the BPD status of the group into account, IPG seemed to provide small to moderate improvement for most symptoms, which were no more impressive than those obtained from the WL condition. This result would suggest that IPG is a relatively weak treatment. This conclusion, however, would be incorrect. When the impact of treatment was assessed by BPD status, contrasting effects were obtained. IPG treatment for groups without BPD+ members was associated with clinically observable moderate to strong improvements, consistently greater than WL. In contrast, those groups with BPD members showed some small improvement in PTSD and general distress symptoms but showed a clinically observable deterioration in capacity to modulate anger. These results highlight the clinical reality of the divergent treatment outcomes that can occur as a result of the personality profile of the group. Exploratory analyses indicated that the lack of improvement in the BPD+ groups was not limited to the individuals carrying the diagnosis. Women without BPD were similar to those with the disorder in showing little improvement in any symptom measure and an increase in anger problems at the end of treatment. In addition, with little exception, analyses of predictors of poor outcome did not identify either number of BPD symptoms nor BPD diagnosis as significant contributors. This finding reinforces the notion that poor outcome did not occur on an individual basis; in other words, it was not an individual differences phenomenon, but rather a group phenomenon, affecting individuals within a certain type of group regardless of their BPD status or BPD symptom set.

We can only speculate why women without BPD in BPD- groups did well, while those in BPD+ groups did not get better and in fact became more angry. One possible explanation of this finding is the presence of an anger "contagion" effect across the members of the BPD+ groups. Based on our clinical observation, group members with BPD were more reactive to group process and were more likely to have their anger ignited by group interactions. The women without BPD did not seem to have the emotional stability or interpersonal skills to respond effectively and protectively in these situations. In one session, for example, a BPD member was in a severely distressed and tearful state concerning the break-up of a romantic relationship. A group member without BPD suggested, in an attempt to be helpful, that perhaps the woman felt so bad because she was in a premenstrual phase. The BPD woman responded, with tremen-

dous vehemence, contempt, and anger, "Are you trying to reduce my emotional pain to a biological phenomenon?" She remained in a hostile and accusatory mode until and past the time her sympathizer became defensive and, in turn, angry herself.

Abuse survivors are well-known to have diverse problems with anger, including being fearful of exposure to anger, fearful of expressing it, and unable to effectively modulate its expression (Courtois & Leehan, 1982; van der Kolk, Roth, Pelcovitz, & Mandel, 1993). Thus, the easily triggered and expressed anger of the BPD client may have resonated with the other abuse survivors who had limited resources for effectively containing and responding to it. In addition, there was client-generated discussion in some groups suggesting that anger activated re-enactment of traumagenic interpersonal dynamics in which members who were the object of anger expression experienced themselves as a victim or "abused," while those expressing anger were experienced as or took on the role of the "abuser." The perception of self and others in victim/abuser roles is a powerful theme that has been strongly articulated in the childhood sexual abuse literature (Finkelhor & Browne, 1985).

Independent of these speculations concerning the group dynamics of the BPD+ condition, the poor outcome observed in these groups supports the clinicians who have expressed serious reservations about including individuals with BPD in group treatment. Yalom, 20 years after his first (1975) book on group therapy, states "these [BPD] patients are not easily treated in a group. They pose a severe challenge to the group therapist: the primitive affects and the highly distorted perceptual tendencies of the borderline patient vastly influence the course of group therapy and severely tax the resources of the group" (Yalom, 1995, p. 400).

Nevertheless, a less radical conclusion might be to consider that different types of groups are required for successful treatment of mixes that include comorbid BPD; in other words, patient treatment matching assessment should be considered. We found that group process therapy was associated with reduced PTSD and associated symptoms among women with a primary diagnosis of PTSD uncomplicated by borderline personality disorder. In contrast, we did not achieve the same result with mixed groups including members with comorbid PTSD/BPD. However, recent studies of trauma-focused group treatments, taking highly structured, more didactic and psycho-educational approaches have reported success with this type of comorbidity (Lubin, Loris, Burt, & Johnson, 1998;

Zlotnick et al., 1997). The structured nature of these groups may allow participants to access important information regarding the impact of trauma, while prohibiting the counter-therapeutic expression of unmodulated feelings that originate from, are re-enactments of, or are simply powerful reactions to a traumatic history.

The study has several limitations, which make the results preliminary. The study was not a randomized controlled clinical trial. The use of multiple symptom measures increased the risk of finding differences in some measures where none existed (Type I error). There were no measures of group process, so the interpretation of an anger "contagion" effect was empirically limited. No follow-up data were obtained, and thus it is unknown whether the reported outcomes endured. In sum, the results of the current study are pre-experimental and need to be replicated via a full randomized clinical trial. The results, however, may provoke discussion of the limits of certain treatment-client combinations and the importance of investigating which trauma-based treatments work best for which patients.

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