

Therapeutic Alliance, Negative Mood Regulation, and Treatment Outcome in Child Abuse-Related Posttraumatic Stress Disorder

Marylene Cloitre, K. Chase Stovall-McClough, and
Regina Miranda
New York University

Claude M. Chemtob
Mount Sinai School of Medicine

This study examined the related contributions of the therapeutic alliance and negative mood regulation to the outcome of a 2-phase treatment for childhood abuse-related posttraumatic stress disorder (PTSD). Phase 1 focused on stabilization and preparatory skills building, whereas Phase 2 was comprised primarily of imaginal exposure to traumatic memories. Hierarchical regression analyses indicated the strength of the therapeutic alliance established early in treatment reliably predicted improvement in PTSD symptoms at posttreatment. Furthermore, this relationship was mediated by participants' improved capacity to regulate negative mood states in the context of Phase 2 exposure therapy. In the treatment of childhood abuse-related PTSD, the therapeutic alliance and the mediating influence of emotion regulation capacity appear to have significant roles in successful outcome.

One of the most enduring problems associated with childhood abuse is difficulty in affect regulation. Under ideal circumstances, the emergence of emotion regulation skills is guided in development by caretakers through activities, such as labeling and interpreting emotional experiences, soothing activities, and role modeling of effective mood regulation (e.g., Malatesta & Haviland, 1982). Unfortunately, these important socializing experiences are disturbed in caretaking environments characterized by sustained physical and/or sexual abuse. Substantial research has shown that maltreated children, compared with nonmaltreated children, have more difficulty managing their emotions adaptively throughout childhood (e.g., Shields & Cicchetti, 1998; Shipman & Zeman, 2001).

Similarly, as adults, victims of childhood abuse show difficulties in emotion regulation, especially in the context of interpersonal relationships. Several studies have demonstrated that, compared with women who have suffered first-time traumas as adults (e.g., rape, physical assault), childhood abuse victims have been found to have more difficulty managing anger, hostility, anxiety, and depression (Browne & Finkelhor, 1986) and report significantly more problems in interpersonal functioning in work, home, and social domains (Zlotnick, Zakriski, Shea, & Costello, 1996).

In response to the unique difficulties faced by adult survivors of childhood abuse, Cloitre and her colleagues have developed a two-phase treatment for childhood abuse-related posttraumatic

stress disorder (PTSD; Cloitre, Koenan, Cohen, & Han, 2002). The first phase of treatment focuses exclusively on skills training in affect and interpersonal regulation (STAIR) with the goals of symptom stabilization and improved day-to-day functioning. In addition, the sequential nature of the treatment is intended to allow education about and practice of emotion regulation skills so that they can be successfully applied during a modified version of prolonged exposure (MPE), which involves imaginal exposure to the traumatic memories as a means toward resolving PTSD symptoms. Results of a randomized clinical trial indicated that compared with a wait-list control group, those who received STAIR/MPE demonstrated significant improvement in several symptom domains including affect regulation, PTSD symptoms, and functional status (Cloitre et al., 2002).

Although the bulk of treatment outcome research examining the efficacy of PTSD treatment has focused on measuring changes in symptom levels, more recent research has begun to examine contributors, such as therapeutic alliance, to the change in symptoms at outcome. For instance, in the clinical trial described above, Cloitre and colleagues found that the strength of the therapeutic alliance established during the first phase of treatment predicted successful reduction of PTSD symptoms during the treatment's second phase when exposure therapy was used (Cloitre et al., 2002). Chemtob, Novaco, Hamada, and Gross (1997) found that PTSD-related anger symptoms caused ruptures in the therapeutic relationship that directly compromised treatment outcome, including premature termination. Similarly, TARRIER et al. (1999) found that clients' feelings regarding the credibility of treatment, a contributor to the therapeutic alliance, predicted dropout from treatment.

The above findings are in accord with a large literature indicating that the therapeutic alliance is the most consistently identified predictor of psychotherapy outcome, although the relationship is often modest in size, with effect sizes ranging from .22 to .24 (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Alliance has proven to predict treatment outcome across different

Marylene Cloitre and K. Chase Stovall-McClough, Institute for Trauma and Stress, New York University; Regina Miranda, School of Medicine, New York University; Claude M. Chemtob, Department of Psychiatry, Mount Sinai School of Medicine.

This study was supported by National Institute of Mental Health Grants MH57883 and MH 62347 to Marylene Cloitre.

Correspondence concerning this article should be addressed to Marylene Cloitre, Institute for Trauma and Stress, Child Study Center, New York University, 215 Lexington Avenue, 16th Floor, New York, NY 10016. E-mail: marylene.cloitre@med.nyu.edu

treatment modalities including short-term cognitive-behavioral treatment (Raue & Goldfried, 1994; Stiles, Agnew-Davies, Hardy, Barkham, & Shapiro, 1998), interpersonal therapy (Krupnick et al., 1996), psychodynamic therapy (Eaton, Abeles, & Gutfreund, 1988; Stiles et al., 1998; Yeomans et al., 1994), gestalt therapy (Watson & Greenberg, 1994), and cognitive therapy (Muran, Segal, Samstag, & Crawford, 1994). Thus, the strength of the patient-therapist relationship appears to be a critical common factor across treatment modalities.

The ubiquitous nature of the treatment alliance as a predictor of treatment outcome has prompted many researchers to begin thinking about more complex questions regarding this relationship and more particularly to move beyond questions of whether the treatment alliance predicts outcome to questions of how this occurs. For instance, some have begun to examine how the therapeutic alliance might interact with specific treatment characteristics, such as treatment duration and therapeutic technique, to predict outcome (e.g., Gaston, 1990; Gelso & Carter, 1994).

The purpose of the present study was to further explore the therapeutic relationship in the STAIR/MPE model by examining whether the apparent relationship between the therapeutic alliance and improved outcome is mediated by the development of emotion regulation skills during the course of treatment. This inquiry represents a "next step" in the study of the therapeutic alliance, insofar as it examines how the alliance may relate to specific treatment interventions in influencing outcome. The hypothesized relationship between the therapeutic alliance and skills development, in particular, was generated by the observation that the social-developmental literature indicates that the learning of emotion regulation skills is strongly influenced by the interpersonal context.

Specifically, we assessed (a) the relationship between therapeutic alliance and PTSD symptoms, our primary outcome variable; (b) whether early therapeutic alliance was related to change in negative mood regulation capacity during Phase 2; (c) the relation between change in Phase 2 negative mood regulation and post-treatment PTSD symptoms; and (d) whether the relationship between the strength of the therapeutic alliance and PTSD outcome was mediated by negative mood regulation capacity.

Method

Participants

Participants in two randomized clinical trials for PTSD related to childhood sexual and/or physical abuse were recruited through advertisements in local papers, hospital and community clinics, and word of mouth. The studies were limited to female participants, as they represent the vast majority of childhood abuse victims (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Participants were included in the studies if they (a) had a history of sexual or physical abuse by a caretaker or person in authority to them; (b) had a primary diagnosis of PTSD related to the index trauma; (c) had no current diagnosis or history of organic mental disorder, schizophrenia, or paranoid disorder; (d) had no current diagnosis of substance dependence, bipolar or dissociative disorder; (e) were literate in English; and (f) were between the ages of 18 and 70 years. Forty-nine women were assigned to the STAIR/MPE condition in one of two randomized clinical trials, and 34 completed treatment. Data from these two trials were combined, as there were no differences between the samples in sociodemographic characteristics, abuse history, or pretreatment symptomatology.

Procedure

After receiving a complete description of the study, participants gave written informed consent. Participants were classified as having a history of childhood sexual abuse if they had at least one episode of sexual contact (fondling; attempted or completed vaginal, oral, or anal intercourse) by a caretaking figure or person in a position of authority (e.g., teacher, religious leader) to the participant before the age of 18 years. Participants were classified as having a history of childhood physical abuse if they had been punished or treated by a caretaking figure in a way that had left bruises, marks, lacerations, or resulted in broken bones or medical attention before the age of 18 years.

Individuals completed a battery of assessments that included both clinical interviews and self-report measures. PTSD diagnosis was determined by the Clinician-Administered PTSD Scale (Blake et al., 1995) administered by a trained clinical psychology PhD or graduate student. Several self-report measures, including PTSD symptomatology and negative mood regulation capacity, were obtained at the beginning of treatment (pretreatment); on completion of Session 8, the end of the first phase of treatment (midtreatment); and following the completion of the second phase of treatment (posttreatment). Participants completed the therapeutic alliance measure at the end of every session, beginning at Session 2.

Treatment

Treatment sessions were conducted by five female PhD-level clinical psychologists trained and supervised by Marylene Cloitre. The treatment was a 16-week program, which focused first on the development and enhancement of interpersonal and emotion regulation skills in eight weekly sessions (Phase 1), followed by eight sessions (twice weekly) of a modified version of prolonged exposure (Phase 2). In Phase 1, participants learned and practiced skills regarding the identification and labeling of feeling states, mood regulation and distress tolerance, identifying and altering interpersonal schemas, and improving social skills. Homework was assigned between each session to practice newly learned techniques. Phase 2 involved prolonged imaginal exposure to trauma-related memories followed by emotional processing of the memory. Approximately two to three imaginal exposure exercises were conducted during a session. After each exposure, the therapist and client reviewed and stabilized the client's emotional state and her focus to the present. In addition, therapist and client explored the meaning of the trauma particularly in terms of the interpersonal schemas embedded in the trauma narrative and the possibility of change, as characterized by the interpersonal schemas that had been formulated and experientially tested in Phase 1.

Measures

Therapeutic alliance. Therapeutic alliance was measured by the 12-item version of the Working Alliance Inventory (WAI; Tracey & Kokotovic, 1998). It assesses three dimensions of the alliance: (a) the emotional bond between client and therapist, (b) agreement about the overall goals of treatment, and (c) agreement about the tasks relevant to achieving these goals. The total score on the scale is an average of the items rated on a Likert scale from 1 (*never*) to 7 (*always*) across the subscales. We relied on the clients' report of therapeutic alliance, as it has been found to be the most reliable predictor of treatment outcome (e.g., Martin et al., 2000). Therapeutic alliance was computed as the average WAI score across Sessions 3, 4, and 5, following previous research indicating that the therapeutic alliance does not appear to significantly increase in strength after that (Gaston, 1990; Horvath & Greenberg, 1986).

Negative mood regulation. Mood regulation capacity was measured by the General Expectancy for Negative Mood Regulation scale (NMR; Catanzaro & Mearns, 1990), a 30-item Likert scale that measures generalized expectancy that some overt behavior or cognition will alleviate a negative state or induce a positive one. Expectations concerning negative feelings include the ability to change a negative state as well as tolerate a negative state. The NMR

has been shown to have adequate internal consistency (ranging .86 to .92) and good test-retest reliability in female samples over 4 and 8 weeks ($r = .76$, $r = .78$; Catanzaro & Mearns, 1990). For these analyses, we examined change in negative mood regulation during the second phase of treatment. A change score was created by subtracting end of Session 8 (midtreatment) NMR score from Session 16 (end of treatment) NMR for each participant. This score indicated the extent to which each participant improved or worsened with regard to negative mood regulation during Phase 2 of treatment.

PTSD symptoms. PTSD symptoms during the course of the trial (pre-, mid-, and posttreatment) were assessed using the Modified PTSD Symptom Scale—Self Report (MPSS—SR; Resick, Falsetti, Resnick, & Kilpatrick, 1991), a 34-item measure that separately measures on a Likert scale the frequency from 0 (*not at all or only one time*) to 3 (*5 or more times per week/almost always*) and severity from 0 (*not at all*) to 4 (*extremely*) of PTSD symptoms. PTSD symptoms were measured by the total of the frequency and severity scales.

Results

Characteristics of Treatment Completers

Twenty-nine percent ($N = 10$) of completers reported both physical and sexual abuse by a parent or caretaker, 56% ($N = 19$) reported only childhood sexual abuse, and 15% ($N = 5$) reported only physical abuse. The average age of STAIR/MPE treatment completers was 33 years ($SD = 7.02$), and ethnic breakdowns were as follows: 56% Caucasian, 21% African American, 12% Hispanic, and 11% of other ethnicities. Most participants (94%) had completed some college or more. Most (77%) lived alone, whereas the remainder were either married or living with a significant other. In addition to a primary diagnosis of PTSD, 53% of the sample met criteria for either major depression or dysthymia, 44% were diagnosed with generalized anxiety disorder, and 18% had panic disorder with or without agoraphobia. Although current substance dependence was an exclusion criterion, current substance use was not, and 9% of the sample was diagnosed with substance use disorder. Twelve percent of the sample entered and maintained an established regime (< 3 months pretreatment) of psychotropic medication (antianxiety or antidepressant agents only). Means and standard deviations of the primary variables in this study are presented in Table 1.

Characteristics of Dropouts

Participants who dropped out of treatment did not differ from completers in abuse history or clinical characteristics ($ts < 1$),

Table 1
Means and Standard Deviations of Study Variables at Pretreatment and Phase 1 WAI for STAIR—MPE Completers and Noncompleters

Measure	Completers		Noncompleters	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MPSS—SR	69.2	15.9	74.1	20.6
NMR	88.7	15.5	87.7	16.0
Phase 1 WAI	6.3	0.6	6.3	0.6

Note. STAIR = skills training in affect and interpersonal regulation; MPE = a modified version of prolonged exposure; MPSS—SR = Modified PTSD Symptom Scale—Self-Report; NMR = Negative Mood Regulation scale; WAI = Working Alliance Inventory; PTSD = posttraumatic stress disorder.

including the variables included in the data analyses for this study (see Table 1). They did not differ on any sociodemographic characteristic except for age, where noncompleters were significantly younger than completers ($M = 28$ years, $SD = 5$ years), $t(47) = 2.61$, $p < .05$. Participants dropped out most frequently at the eighth session of treatment ($M =$ Session 8, $SD = 4$), which was the last session of Phase 1. There was no difference in Phase 1 WAI between treatment completers and the 15 women who dropped out of treatment.

Therapeutic Alliance and PTSD Symptom Outcome

The average of the WAI at Sessions 3, 4, and 5 of STAIR/MPE was 6.3 ($SD = 0.6$). There were no differences in WAI scores across therapists. As expected, the WAI was significantly and negatively related to PTSD symptoms at the end of treatment, $r(30) = -0.46$, $p < .01$. According to Cohen (1992), effect sizes for correlations (i.e., clinically meaningful, usually observable relationships) are considered small for correlations of .10 and above, moderate for those at .30 and above, and large for those at .50 and above. Thus, the effect size between strength of therapeutic alliance and lower symptoms of PTSD was in the moderate to large range. The therapeutic alliance in Phase 2 of treatment was similar to that obtained in Phase 1: The average WAI score across Sessions 9–16 was 6.4 ($SD = 0.7$).

Negative Mood Regulation as a Mediator of the Relationship Between Therapeutic Alliance and Phase 2 PTSD Symptom Reduction

Four criteria are required for mediation, according to Baron and Kenny (1986): (a) the predictor variable (WAI) must be related to the outcome variable (PTSD), (b) the predictor must be related to the hypothesized mediator (NMR change), (c) the mediator must be related to the outcome variable, and (d) the relation between the predictor and outcome variable must no longer be statistically significant after adjusting for the mediator.

Correlational analyses were conducted to assess the relationships among Phase 1 WAI, NMR change in Phase 2, and posttreatment PTSD symptoms. WAI was significantly and positively related to change in NMR, $r(31) = 0.34$, $p < .05$ (one-tailed), such that stronger client-reported therapeutic alliance was related to improvement in NMR between midtreatment and posttreatment assessments. Furthermore, Phase 2 change in NMR was significantly and negatively related to posttreatment PTSD symptoms, $r(31) = -0.56$, $p < .01$.

Given that the first three criteria for mediation were satisfied, we tested the final criterion by means of a hierarchical regression analysis. Phase 1 WAI was entered first, adjusting for baseline Phase 2 PTSD symptoms (i.e., midtreatment MPSS—SR), to account for decreases in PTSD symptoms that may have occurred as a result of Phase 1. Phase 2 change in negative mood regulation was entered next to predict posttreatment PTSD. As represented in Table 2, Phase 1 WAI was a reliable predictor of PTSD at posttreatment, adjusting for PTSD symptoms, with the model accounting for 39% of the variance in posttreatment PTSD symptoms, $F(2, 30) = 9.47$, $p < .01$. However, once change in Phase 2 NMR was entered into the regression, WAI was no longer a significant predictor of PTSD, whereas NMR change significantly

Table 2
Hierarchical Linear Regression Showing Phase 2 Change in Negative Mood Regulation (NMR) as a Mediator Between Therapeutic Alliance in Phase 1 and Posttreatment PTSD Symptoms

Model	Predictor	β	t	p	ΔR^2
1	PTSD symptoms, midtreatment MPSS–SR	.45	2.95	.006	.39
	Phase 1 Therapeutic Alliance WAI	–.31	–2.04	.05	
2	PTSD symptoms, midtreatment MPSS–SR	.46	3.61	.001	.19
	Phase 1 Therapeutic Alliance WAI	–.15	–1.10	.28	
	Phase 2 Negative Mood Regulation NMR	–.47	–3.64	.001	

Note. PTSD = posttraumatic stress disorder; MPSS–SR = Modified PTSD Symptom Scale—Self-Report; WAI = Working Alliance Inventory.

predicted posttreatment PTSD symptoms. This second model accounted for an additional 19% in symptoms, with the final model accounting for a total of 58% of variance in PTSD, $F(2, 29) = 13.30, p < .001$. Thus, it appears that although Phase 1 therapeutic alliance reliably predicts PTSD symptoms at the end of Phase 2, this relationship is mediated by an individual's capacity to regulate her negative mood during exposure (see Figure 1).

Discussion

The results support the study hypotheses regarding the role of the early therapeutic alliance in treatment outcome among women participating in a cognitive–behavioral treatment for childhood abuse-related PTSD. Consistent with hypotheses, a positive therapeutic relationship in the initial phase of treatment predicted PTSD symptom reduction at the end of treatment. Furthermore, this success was mediated through an improvement in the capacity to regulate negative mood state during the emotionally intense intervention of exposure therapy.

The study also reveals the rather substantial contribution of the therapeutic alliance in the successful treatment of childhood abuse survivors with PTSD. The effect size of the relationship between therapeutic alliance and outcome in this study was much larger (.47) than those obtained in a previous meta-analysis by Horvath

and Greenberg (1986) and Martin et al. (2000), which were reported, respectively, as .20 and .22. The role of the therapeutic alliance in the treatment of PTSD among childhood abuse survivors seems a particularly important factor to consider given the interpersonal context in which their trauma occurred. Physical and/or sexual abuse at the hands of trusted caregivers is strongly associated with feelings of distrust of others, disconnection, and isolation in adulthood (Briere, 1988; Cole & Putnam, 1992). The potent role that the positive therapeutic alliance plays in treatment success may reflect a reversal or reparation of interpersonal disturbances, which undermine success in a variety of tasks including psychotherapy. The results underscore the idea that the therapeutic relationship may be an especially “active” ingredient in the remediation of childhood abuse-related PTSD and a component of treatment that should be highlighted, better understood, and carefully developed and monitored for this population.

STAIR/MPE was formulated as a rehabilitative model intended to ameliorate the deficits in emotion regulation associated with childhood abuse. The therapeutic relationship was implicated in this effort because learning about emotions, their expression, and their management inevitably occurs in the context of an interpersonal relationship. Developmental research, for example, indicates that emotional learning in early life is strongly influenced by

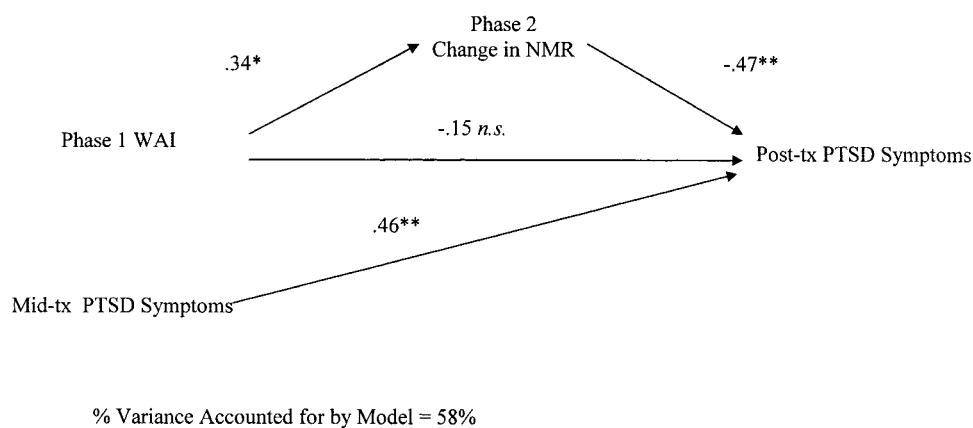


Figure 1. Final model of Phase 2 change in negative mood regulation (NMR) as a mediator of the relationship between Phase 1 therapeutic alliance and posttreatment posttraumatic stress disorder (PTSD) symptoms, adjusting for midtreatment PTSD. WAI = Working Alliance Inventory; *n.s.* = not significant; tx = treatment. * $p < .05$ (one-tailed). ** $p < .01$ (two-tailed).

caregivers, who act as “hidden regulators” of distress (Hofer, 1994) shaping capacity for modulating a range of emotions. The hypothesized relationship between the therapeutic alliance and emotion regulation skills enhancement in STAIR/MPE derived from the belief that the interpersonal context influences emotion regulation and that this principle was in operation during treatment.

The sequence of phases in the treatment followed an orderly cumulative process of skills enhancement, which included preparatory skills evaluation and training in the context of a supportive therapeutic alliance, followed by a test of these skills under challenging circumstances. Although the therapeutic relationship is established and skills are practiced in Phase 1, the skills are critically tested during the emotional challenge of Phase 2 exposure to the distressing traumatic memories. Our findings demonstrate that a strong therapeutic bond established in the early phase of treatment predicts how well patients were able to make use of emotional regulation skills under the conditions of exposure and that this combination, in turn, predicts the amelioration of PTSD symptoms. This is important because it is under the demanding conditions of exposure that the capacity to tolerate distress is most likely to deteriorate, resulting in patient dropout and loss of treatment gains (Burnstein, 1986; Pitman et al., 1991; Scott & Stradling, 1997; Tarrier et al., 1999).

Finally, the apparent importance of the therapeutic alliance for achieving negative affect regulation and the consequent treatment efficacy may usefully guide theory development. It has been proposed that exposure treatments for PTSD are effective because they force patients to overcome their avoidance of the trauma-related memories, thus promoting corrective elaboration (processing) of the traumatic event. This theoretical model largely elaborates on earlier models of phobia and its treatment. This perspective has relatively minimized the importance of the therapeutic alliance in symptom amelioration. The present results suggest that, at least for those traumatized early in development, consideration should be given to a more complex theoretical model of treatment efficacy that incorporates the therapeutic alliance and related experiences such as social support as a means of resolving past psychological traumas and acquiring the specific regulatory skills required to accomplish this goal.

It is important to note that this study has several limitations. First, our participants were all women. Therefore, it is not known whether the therapeutic alliance would play the same role in emotion regulation and outcome in a sample of male abuse survivors. For instance, it is possible that emotion regulation capacities play a larger role in functional impairment in women than in men and therefore are more affected by treatment variables. Second, although we were interested in the role of therapeutic alliance in promoting emotion regulation, we were limited to self-report measures and did not incorporate observational measures of emotional regulation. It would be important to further validate this model utilizing physiological and/or observational measures of affect regulation. Indeed, an extension of the present research might study the specific effects of skills training on affective judgments, impulsivity, and interpersonal problem solving. Lastly, this study provides empirical evidence of the contribution of the therapy relationship to good outcome in a cognitive-behavioral treatment that includes a strong focus on emotion regulation skills training. Further research is required to determine the comparative influ-

ence of the therapeutic alliance when other types of treatment interventions or models are used.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Blake, D. D., Weather, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., et al. (1995). The development of a Clinician-Administered PTSD Scale. *Journal of Traumatic Stress*, *8*, 75–90.
- Briere, J. (1988). The long-term clinical correlates of childhood sexual victimization. *Annals of the New York Academy of Sciences*, *528*, 327–334.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*, 66–77.
- Burnstein, A. (1986). Treatment noncompliance in patients with posttraumatic stress disorder. *Psychosomatics*, *27*, 37–40.
- Catanzaro, S. J., & Mearns, J. (1990). Measuring generalized expectations for negative mood regulation: Initial scale development and implications. *Journal of Personality Assessment*, *54*, 546–563.
- Chemtob, C. M., Novaco, R. N., Hamada, R. N., & Gross, D. (1997). Cognitive-behavioral treatment of severe anger in posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *65*, 184–189.
- Cloitre, M., Koenen, K. C., Cohen, L. C., & Han, H. (2002). Skills training in affective and interpersonal regulation followed by exposure: A phase-based treatment for PTSD related to childhood abuse. *Journal of Consulting and Clinical Psychology*, *70*, 1067–1074.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159.
- Cole, P., & Putnam, F. W. (1992). Effects of incest on self and social functioning: A developmental psychopathology perspective. *Journal of Consulting and Clinical Psychology*, *60*, 174–184.
- Eaton, T. T., Abeles, N., & Gutfreund, M. (1988). Therapeutic alliance and outcome: Impact of treatment length and pretreatment symptomatology. *Psychotherapy: Theory, Research, Practice, Training*, *25*, 536–542.
- Gaston, L. (1990). The concept of the alliance and its role in psychotherapy: Theoretical and empirical considerations. *Psychotherapy Assessment*, *3*, 68–74.
- Gelso, C. J., & Carter, J. A. (1994). Components of the psychotherapy relationship: Their interaction and unfolding during treatment. *Journal of Counseling Psychology*, *41*, 296–306.
- Hofer, M. (1994). Hidden regulators in attachment, separation, and loss. *Monographs of the Society for Research in Child Development*, *59*(2–3), 192–207, 250–283.
- Horvath, A., & Greenberg, L. (1986). The development of the Working Alliance Inventory. In L. Greenberg & W. Pinsof (Eds.), *The psychotherapeutic process: A research handbook* (pp. 529–556). New York: Guilford Press.
- Horvath, A. O., & Symonds, D. B. (1991). Relation between working alliance and outcome in psychotherapy: A meta-analysis. *Journal of Counseling Psychology*, *38*, 139–149.
- Kessler, R., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, *52*, 1048–1060.
- Krupnick, J. L., Sotsky, S. M., Simmens, S., Moyer, J., Elkin, I., Watkins, J., et al. (1996). The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: Findings in the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *Journal of Consulting and Clinical Psychology*, *64*, 532–539.
- Malatesta, C. Z., & Haviland, J. M. (1982). Learning display rules: The socialization of emotion expression in infancy. *Child Development*, *53*, 991–1003.
- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the

- therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68, 438–450.
- Muran, J. C., Segal, Z. V., Samstag, L. W., & Crawford, C. E. (1994). Patient pretreatment interpersonal problems in therapeutic alliance in short-term cognitive therapy. *Journal of Consulting and Clinical Psychology*, 62, 185–190.
- Pitman, R., Altman, B., Greenwald, E., Longre, R. E., Macklin, M. L., Pore, R. E. et al. (1991). Psychiatric complications during flooding therapy for posttraumatic stress disorder. *Journal of Clinical Psychiatry*, 52, 17–20.
- Raue, P. J., & Goldfried, M. R. (1994). The therapeutic alliance in cognitive–behavior therapy. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 131–152). Oxford, England: Wiley.
- Resick, P. A., Falsetti, S. A., Resnick, H. S., & Kilpatrick, D. G. (1991). *The Modified PTSD Symptom Scale—Self Report*. St. Louis: University of Missouri; and Charleston: University of South Carolina, Crime Victims Treatment and Research Center.
- Scott, M. J., & Stradling, S. G. (1997). Client compliance with exposure treatments for posttraumatic stress disorder. *Journal of Traumatic Stress*, 10, 523–526.
- Shields, A., & Cicchetti, D. (1998). Reactive aggression among maltreated children: The contributions of attention and emotion dysregulation. *Journal of Clinical Child Psychology*, 27, 381–395.
- Shipman, K. L., & Zeman, J. (2001). Socialization of children's emotion regulation in mother–child dyads: A developmental psychopathology perspective. *Development and Psychopathology*, 13, 317–336.
- Stiles, W. B., Agnew-Davies, R., Hardy, G. E., Barkham, M., & Shapiro, D. A. (1998). Relations of the alliance with psychotherapy outcome: Findings in the second Sheffield Psychotherapy Project. *Journal of Consulting and Clinical Psychology*, 66, 791–802.
- Tarrier, N., Pilgrim, H., Sommerfield, C., Faragher, B., Reynolds, M., Graham, E., et al. (1999). A randomized trial of cognitive therapy and imaginal exposure in the treatment of chronic posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 67, 13–18.
- Tracey, T. J., & Kokotovic, A. M. (1998). Factor structure of the Working Alliance Inventory. *Psychological Assessment*, 10, 207–210.
- Watson, J. C., & Greenberg, L. S. (1994). The alliance in experiential therapy: Enacting the relationship conditions. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 153–172). Oxford, England: Wiley.
- Yeomans, F. E., Gutfreund, J., Selzer, M. A., Clarkin, J. F., Hull, S. W., & Smith, T. E. (1994). Factors related to drop-outs by borderline patients: Treatment contract and therapeutic alliance. *Journal of Psychotherapy: Practice and Research*, 3, 16–24.
- Zlotnick, C., Zakriski, A. L., Shea, M. T., & Costello, E. (1996). The long-term sequelae of sexual abuse: Support for a complex posttraumatic stress disorder. *Journal of Traumatic Stress*, 9, 195–205.

Received April 22, 2003

Revision received June 30, 2003

Accepted July 17, 2003 ■

Wanted: Old APA Journals!

APA is continuing its efforts to digitize older journal issues for the PsycARTICLES database. Thanks to many generous donors, we have made great strides, but we still need many issues, particularly those published in the 1950s and earlier.

If you have a collection of older journals and are interested in making a donation, please e-mail journals@apa.org or visit <http://www.apa.org/journals/donations.html> for an up-to-date list of the issues we are seeking.