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## Psychotherapy Process and Relationship in the Context of a Brief, Attachment-Based, Mother-Infant Intervention

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### Abstract

The present study investigated links between the observer-rated process of psychotherapy and two key psychotherapy relationship variables (i.e., working alliance and attachment to the therapist) in the context of a brief, attachment-based, home-visiting, mother-infant intervention that aimed to promote later secure infant attachment. Additionally, links between observer ratings of intervener and mother contributions to process were examined. Participants included 85 economically stressed mothers of first-born, 5.5-month-old, temperamentally irritable infants. Therapists included two doctoral-level and four master's-level home visitors. Observer-rated therapist psychotherapy process variables (i.e., warmth, exploration, and negative attitude) were not linked to maternal ratings of working alliance. Therapist warmth, however, was positively associated with maternal ratings of security of attachment to the therapist, and therapist negative attitude was positively related to maternal ratings of preoccupied-merger attachment to the therapist. As expected, both therapist warmth and exploration were positively associated with both maternal participation and exploration. Therapist negative attitude was inversely related to maternal exploration, but not to maternal participation. Results support the idea that attention to the psychotherapy process and relationship may be important in the context of a brief, home-visiting parenting intervention with a non-clinical sample.

### Keywords

Psychotherapy Process; Psychotherapy Relationship; Working Alliance; Attachment; Parenting Intervention

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Because compelling longitudinal data indicate that attachment insecurity in infancy is a risk factor for later psychopathology (Sroufe, Egeland, Carlson, & Collins, 2005a, 2005b),

interventions have been developed to promote infants' security of attachment by supporting sensitive parental caregiving. Meta-analytic work has suggested that brief, attachment-based interventions are efficacious (Bakermans-Kranenburg, IJzendoorn, & Juffer, 2003), yet little is known about either the process of intervention or the parent-intervener relationship within the context of such brief, attachment-based interventions. With only a few notable exceptions (for a review see Korfmacher, Green, Spellmann, & Thornburg, 2007), strikingly little research has examined either psychotherapy process or the psychotherapy relationship in the context of parenting interventions, and none of this research has relied on direct observation of psychotherapy process in such interventions. This research gap is made remarkable by decades of theory and research underlining the key importance of the relationship to outcome in individual psychotherapy (Norcross, 2002, 2011).

The purpose of the present study was to address this gap by examining for the first time whether observer-rated therapist behaviors were linked to mothers' perceptions of the relationship with the intervener in the context of a brief, attachment-based, home-visiting mother-infant intervention. We focused on the intervention group in an earlier randomized, controlled trial (RCT; Cassidy, Woodhouse, Sherman, Stupica, & Lejuez, 2011) of a brief, three-session (with a fourth follow up visit) parenting intervention called Circle of Security-Home Visiting 4 (COS-HV4; Cooper, Hoffman, Powell, & Marvin, 2005). In this earlier study, COS-HV4 was shown to be efficacious in reducing the risk of insecure attachment in a sample of first-born, temperamentally highly irritable infants of economically stressed mothers. In the present study, we examined whether observer-rated therapist behaviors were linked to mothers' perceptions of the working alliance and attachment to the therapist.

Nearly 30 years ago, Gelso and Carter (1985, 1994) laid out a number of theoretical propositions about the psychotherapy relationship, and a large body of research now links numerous aspects of the psychotherapy relationship with outcome (Norcross, 2002, 2011). Given the importance of the relationship in individual psychotherapy, some researchers have begun to recognize the value of considering the psychotherapy relationship in attachment-based parenting interventions. Nevertheless, little is yet known about the intervener-mother relationship (Korfmacher et al., 2007). In the present study, we focused on two aspects of the relationship: working alliance and attachment to therapist. The alliance has received tremendous empirical attention in the context of individual psychotherapy (Norcross, 2002, 2011). Flückiger, Del Re, Wampold, Symonds, and Horvath (2012), in a recent meta-analysis, noted that the association between alliance and outcome has been robust across four meta-analyses over the past two decades. Given the importance of working alliance, we focused on links between observer-rated therapist in-session behaviors and mothers' perceptions of the working alliance.

Attachment to the therapist (Mallinckrodt, Gantt, & Coble, 1995) is another promising aspect of the therapy relationship. Bowlby (1988) theorized that the therapist serves as a secure base from which the client can explore. Attachment to the therapist has been empirically linked with the working alliance (Mallinckrodt, Coble, & Gantt, 1995) and in-session exploration (Mallinckrodt, Porter, & Kivlighan Jr, 2005). Mallinckrodt et al (1995) defined attachment to the therapist in terms of three dimensions: secure attachment to the therapist refers to the degree to which the client feels safe and comfortable; preoccupied-

merger attachment reflects the degree to which the client feels overly preoccupied with the therapist; and avoidant-fearful attachment to the therapist, in contrast, refers to the extent to which the client feels judged, criticized, and ashamed with the therapist. In the present study, we examined whether observer-rated therapist contributions to the process were associated with mothers' ratings of their attachment to the therapist.

In addition to our central questions about the links between intervener behaviors and mother's perceptions of the relationship, we also examined whether observer ratings of the therapist's contributions to the process were linked to the mother's in-session observed behaviors. Given Bowlby's (1988) focus on the therapist's role as providing a secure base from which the client can feel safe to explore, we were particularly interested in therapist behaviors theorized to influence maternal safety (i.e., therapist warmth/friendliness or therapist negative behaviors), as well as therapist encouragement of exploration per se. Moreover, because Bowlby (1988) emphasized the client's exploration in the context of a secure base, we were most interested in mothers' behaviors indicating engagement or exploration (i.e., active reflection about parenting). The Vanderbilt Psychotherapy Process Scale (VPPS; O'Malley, Suh, & Strupp, 1983; Suh, O'Malley, Strupp, & Johnson, 1989; Suh, Strupp, & O'Malley, 1986) provided a conceptualization of process that meshed well with our focus on relational processes and support for exploration. O'Malley et al. (1983) conceptualized psychotherapy process in terms of therapist contributions (therapist warmth/friendliness, therapist exploration, therapist negative attitude) and client contributions (client involvement/participation, client exploration).

## The Present Study

We hypothesized that observer-rated therapist warmth/friendliness would be positively associated with mothers' ratings of both working alliance and secure attachment to the therapist. In contrast, we hypothesized that observer-rated therapist negative attitude would be inversely related to maternal ratings of working alliance, and positively related to maternal ratings of preoccupied-merger and fearful-avoidant attachment to the therapist. Additionally, we hypothesized that observer-rated therapist warmth/friendliness, as well as observer-rated therapist support for exploration, would be positively associated with observer ratings of both maternal participation/engagement and maternal exploration. Finally, we hypothesized that observer-rated therapist negative attitude would be inversely associated with observer ratings of both maternal participation/engagement and maternal exploration. In order to characterize the nature of the sample on two dimensions known to be associated with maternal response to attachment-based early interventions (Berlin et al., 2011; Duggan, Berlin, Cassidy, Burrell, & Tandon, 2009), we also assessed maternal attachment and symptoms.

## Method

### Participants

**Clients**—Participants in the present study were the 85 economically stressed mothers of first-born, 5.5-month-old, temperamentally irritable infants (39 girls, 46 boys), who constituted the intervention group of an earlier RCT (Cassidy et al., 2011). Mothers in the

present study ranged in age from 18 to 38 years ( $M = 23.9$ ,  $SD = 5.2$ ) and were racially and ethnically diverse (40% Black or African American, 29.4% White, 20% Hispanic, 3.5% Asian, 7.2 % other identity groups or multiracial).

**Therapists**—Mother-infant interventions were conducted by six, White, female psychotherapists (two doctoral-level, four master's level). See Cassidy et al. (2011) for details on fidelity, including training and supervision. Interveners worked with varying numbers of mother-infant dyad clients (specifically, 8, 9, 10, 11, 19, 28 dyads), depending on the amount of time each therapist worked with the project.

## Measures

**Maternal Attachment Style**—The *Experiences in Close Relationship Scale* (ECR; Brennan, Clark, & Shaver, 1998) was used to measure mothers' adult attachment style prior to the intervention. The ECR assesses two dimensions of adult attachment: avoidance and anxiety. Avoidance reflects the degree of discomfort with emotional closeness. Attachment anxiety refers to the level of fear of rejection in close relationships. In the current study, internal consistency  $\alpha$  coefficients were .82 for avoidance and .93 for anxiety. Because it may be useful to refer to benchmarks scores for dimensions of attachment for clients in previous research, we note that previous research with non-clinical samples of non-help-seeking, volunteer clients has found mean ECR scores on attachment anxiety ranging from  $M = 3.45$  ( $SD = 1.07$ ) to  $M = 3.59$  ( $SD = 1.08$ ) and on avoidance ranging from  $M = 2.53$  ( $SD = 1.19$ ) to  $M = 2.62$  ( $SD = 1.18$ ; Janzen, Fitzpatrick, & Drapeau, 2008; Romano, Fitzpatrick, & Janzen, 2008). Other research with clinical samples (i.e., treatment-seeking clients) has found mean ECR scores on attachment anxiety ranging from  $M = 4.13$  ( $SD = 1.07$ ) to  $M = 4.35$  ( $SD = 1.24$ ) and on avoidance ranging from  $M = 3.19$  ( $SD = 1.14$ ) to  $M = 3.29$  ( $SD = 1.37$ ; Mallinckrodt, Porter, & Kivlighan, 2005; Moore & Gelso, 2011).

**Maternal Symptoms**—The *Brief Symptom Inventory* (BSI; Derogatis, 1993) is a self-report measure that was used to assess psychological symptoms in the mother prior to the intervention. BSI items are summed to form a *General Severity Index* (GSI), a well-validated measure of overall psychological distress (Derogatis & Fitzpatrick, 2004). In the present study,  $\alpha = .98$  for the GSI. The clinical cutoff score for the raw score on the GSI for adult women is 1.58 (Maruish, 2004).

**Maternal Perceptions of the Relationship**—Mother's perceptions of the psychotherapy relationship were assessed using two instruments. The *Working Alliance Inventory-Short Form* (WAI-SF; Horvath & Greenberg, 1989) is a 12-item measure of the client's perspective on the working alliance (i.e., agreement with the therapist on the tasks and goals of therapy, as well as the bond with the therapist) that was developed via a confirmatory factor analysis of Horvath and Greenberg's (1989; Tracey & Kokotovic, 1989) original 36-item version of the Working Alliance Inventory. Items are rated on a 7-point scale (1 = *never*, 7 = *always*) and summed to compute a total working alliance score. Tracey and Kokotovic (1989) found a Cronbach  $\alpha$  of .98. In the present study we found an  $\alpha$  coefficient of .81. Evidence for the validity of the measure includes theoretically based links between the WAI-SF and psychotherapy outcome (Tracey & Kokotovic, 1989). Benchmark

scores for the client-rated WAI-SF include those from previous research with a clinical samples of  $M = 74$  ( $SD = 6.95$ ; Fuertes et al., 2007), as well as those from previous research for the third session in a non-clinical, Norwegian sample of parents engaged in a parenting intervention  $M = 75.70$  ( $SD = 7.16$ ; Hukkelberg & Ogden, 2013).

The *Client Attachment to Therapist Scale* (CATS; Mallinckrodt, Gantt, et al., 1995) is a 36-item self-report measure used to assess mothers' attachment to their therapists. Clients respond to each item on a 6-point scale (1 = *strongly agree*, 6 = *strongly disagree*). The CATS has three subscales: (a) secure, (b) preoccupied-merger, and (c) avoidant-fearful. The secure subscale reflects the degree to which the client experiences the therapist as understanding, available, and accepting. The preoccupied-merger subscale assesses the degree to which the client is preoccupied with the therapist and wishes to extend the boundaries of the relationship. The avoidant-fearful subscale measures the degree to which the client believes the therapist is disapproving, rejecting, or displeased with the client. Woodhouse, Schlosser, Crook, Ligiéro, and Gelso (2003) found internal consistency estimates of .78, .84, and .70 for the secure, preoccupied-merger, and avoidant-fearful scales, respectively. In the present study, Cronbach  $\alpha$  coefficients were .78 for the secure, .86 for the preoccupied-merger, and .77 for the avoidant-fearful scales. Evidence for construct validity of the CATS includes theoretically based associations with working alliance (Mallinckrodt, Porter, & Kivlighan Jr, 2005), adult attachment (Mallinckrodt, Coble, et al., 1995), and transference (Woodhouse et al., 2003). In terms of benchmark scores for the CATS subscales, previous research with clinical samples has found means for the Secure subscale ranging from  $M = 71.03$  ( $SD = 8.93$ ) to  $M = 75.00$  ( $SD = 14.60$ ), means for the Preoccupied-Merger subscale ranging from  $M = 24.52$  ( $SD = 9.11$ ) to  $M = 27.00$  ( $SD = 12.17$ ), and means on the Avoidant Fearful Scale ranging from  $M = 16.00$  ( $SD = 6.63$ ) to  $M = 21.44$  ( $SD = 9.26$ ; Fuertes et al., 2007; Mallinckrodt, Gantt, et al., 1995; Mallinckrodt, King, & Coble, 1998; Sauer, Anderson, Gormley, Richmond, & Preacco, 2010).

**Psychotherapy Process**—The *Vanderbilt Psychotherapy Process Scale* (VPPS; O'Malley et al., 1983; Suh et al., 1989; Suh et al., 1986) is an 80-item observational coding system that assesses the process of psychotherapy in terms of three therapist/intervener dimensions (Warmth/Friendliness [9 items], Exploration [13 items], and Negative Attitude [6 items]), as well as three dimensions related to client/mother contributions to process (Client Involvement/Participation [8 items], Hostility [6 items], Exploration [7 items]). Therapist Warmth/Friendliness refers to the level of therapist warmth and emotional involvement with the client. Therapist Exploration reflects attempts by the therapist to probe client dynamics that may underlie client issues. Therapist Negative attitude refers to therapist behaviors that might intimidate the client. Client Participation refers to the degree to which clients are actively involved in the therapeutic interaction. Client Hostility captures the degree of negativism, hostility, or distrust shown by the client. Client Exploration refers to the level of exploration of feelings or experiences. Item scores for each dimension were averaged to provide a mean dimensional score for a given session. These scores were then averaged across the three sessions to provide an overall score on each dimension for the case. We omitted two client process dimensions (Psychic Distress and Dependency) because they were not relevant for a brief, preventive intervention for a non-clinical sample; mothers

were not seeking help for distress and had little time to come to depend on the intervener. Strong psychometric properties for the VPPS scales have been reported (Martin, Garske, & Davis, 2000; O'Malley et al., 1983). With the exception of one dimension (Client Hostility, which was therefore dropped), the present coders were reliable, with ICCs for scale ratings from each of the three home visits ranging from .82 –.89 for Client Participation ( $M = .85$ ), .86 –.89 for Client Exploration ( $M = .88$ ), .67 –.72 for Therapist Warmth ( $M = .70$ ), and .79 –.87 Therapist Exploration ( $M = .84$ ); coders demonstrated perfect agreement on Therapist Negative Attitude across the three home visits. Benchmark scores for the VPPS dimension are difficult to obtain because key studies using the VPPS observer-rated scales did not report mean scores on the VPPS dimensions (e.g., Bedics, Henry, & Atkins, 2005; O'Malley et al., 1983; Rounsaville et al., 1987; Suh et al., 1989; Windholz & Silberschatz, 1988). Nevertheless, Henry, Strupp, Butler, Schacht, & Binder (1993) provided scores for licensed clinical psychologists and psychiatrists who were scored using the VPPS both pre- and post-training in a particular treatment method. Therapists' mean scores on Therapist Negative Attitude were  $M = 0.70$  ( $SD = 0.15$ ) pre-training and  $M = 0.80$  ( $SD = 0.20$ ) post-training. Therapists' scores on Warmth were  $M = 2.48$  ( $SD = 0.50$ ) pre-training and  $M = 2.38$  ( $SD = 0.36$ ) post-training. Winter and Watson (1999) provided median scores and ranges from Session 5 for 11 clinicians providing personal construct psychotherapy (PCP) and 33 providing cognitive therapy (CT) for the VPPS scales of Negative Therapist Attitude (PCP median = 6.00, range = 1.00; CT median = 7.00, range = 10.00), Therapist Exploration (PCP median = 43.00, range = 35.00; CT median = 32.00, range = 10.00), and Client Participation (PCP median = 33.00, range = 13.00; CT median = 26.00, range = 18.00).

## Procedure

Cassidy et al. (2011) provided a detailed description of the RCT procedures, upon which the current study builds. Briefly, when infants were 5.5 months old, mothers completed the pre-intervention measures of maternal attachment and maternal symptoms in the lab. Each mother-infant dyad received the COS-HV4 intervention when the infants were approximately 6.5–9 months old. The COS-HV4 consisted of three, one-hour, videotaped home visits that occurred approximately every three weeks, with a brief fourth follow-up visit. Mothers completed the WAI-SF and the CATS during the fourth, follow-up home visit. Undergraduate research assistants, who had no other information about participants, viewed videotapes of each of three home visiting sessions for each mother-infant dyad to identify the 20-minute section of session to be rated using the VPPS (O'Malley et al., 1983) by two graduate student coders. We selected the 20-minute segments based on structural elements of the manualized protocol for each session. In the first home visit, we focused on the 20 minutes following an intervener question asking the mother to consider infant needs that the mother may find most challenging. In the second and third home visits, we selected the 20 minutes after the mother was presented with a video illustrating a challenging area for her. The two coders (one male, one female; one African American, one White) were doctoral students in counseling psychology with earned master's degrees and previous clinical experience. Each 20-minute segment was coded independently by each of the two coders, who had no knowledge of the rest of the session or any other information about the cases. Any differences in coding were resolved through consensus; consensus codes were used in analyses.

## Results

### Preliminary Analyses

In order to characterize the nature of the current sample, we examined maternal attachment style and symptom levels. Mothers' scores on adult attachment as measured by the ECR were  $M = 3.12$  ( $SD = 1.13$ ) for attachment anxiety and  $M = 3.11$  ( $SD = 0.86$ ) for attachment avoidance, comparable to benchmark scores on the ECR for non-clinical samples of volunteer clients. Mothers' scores on symptoms as measured by the GSI scale of the BSI were  $M = 0.64$  ( $SD = 0.73$ ) indicating that this was, on average, a non-clinical sample, as might be expected given that the intervention as a preventive intervention focused prevention of insecure attachment in infants at risk of insecurity due to the dual risk factors of low income and irritable infant temperament.

### Principal Analyses

Table 1 presents the inter-correlations among the VPPS process scales, the CATS dimensions of attachment to therapist, and WAI working alliance scale, as well as means and standard deviations for each of these scales. Two of the three predictions about links between the VPPS observed therapist behavior scales and CATS maternal attachment to the therapist were supported. As expected, there were significant positive associations between the VPPS therapist warmth/friendliness scale and CATS secure attachment to the therapist scale, as well as between the VPPS therapist negative attitude scale and the CATS preoccupied-merger attachment to the therapist scale. Contrary to expectation, there was no significant link between VPPS therapist negative attitude scale and the CATS client fearful-avoidant attachment to the therapist scale. Also, contrary to expectation, there were no links between the VPPS therapist observed behavior scales and mother-rated WAI.

Table 1 shows evidence for five of the six expected associations between observer ratings of therapists' and mothers' contributions to psychotherapy process. First, consistent with expectation, observer-rated therapist VPPS warmth/friendliness was significantly and positively related to both observer-rated VPPS client participation/engagement and observer-rated VPPS client exploration. Similarly, as expected, observer-rated VPPS therapist exploration was significantly and positively associated with both observer-rated VPPS client participation/engagement and observer-rated VPPS client exploration. Finally, as hypothesized, observer ratings of VPPS therapist negative attitude were significantly and inversely related to observer ratings of VPPS client exploration; however, there was no significant relation between observer ratings of VPPS therapist negative attitude and client participation/engagement.

## Discussion

The present study is the first, to our knowledge, to examine links between observed psychotherapy process and mothers' perceptions of the relationship with the intervener in the context of attachment-based, mother-infant interventions. To date, research examining the therapeutic relationship or process in the context of parenting interventions for families with young children has been limited, and has relied on self-report measures or clinician

notes (Korfmacher et al., 2007). Thus, the present study represents an advance in our understanding of the process of preventive home visiting intervention in a non-clinical community sample, and suggests that methods to examine psychotherapy process are relevant to this mode of intervention.

Therapist warmth, as expected, was linked to client secure attachment to the therapist, as well as to client participation/engagement and client level of exploration. In contrast and consistent with our hypothesis, observer-rated therapist negative attitude was associated with higher levels of preoccupied-merger attachment to the therapist and lower levels of exploration. Thus, results of the present study suggest not only that therapist behaviors are linked to maternal attachment to the therapist, but also the degree of mothers' participation/engagement and level of exploration in session. Interestingly, contrary to expectation, neither therapists' nor mothers' observed in-session behaviors appeared to be linked to maternal perceptions of the working alliance. This finding may have been due to the fact that working alliance ratings on average tended to be fairly positive.

It is impossible to ascertain the direction of causality from the present data. Therapists may be warmer and less negative with clients who are doing well in treatment, yet clients may also react negatively to therapists who are less warm and more negative. Nevertheless, results suggest that supervisors may want to focus attention on promoting therapist warmth. It is possible that therapist warmth may be more important at certain times than others (e.g., perhaps when mothers are openly exploring parenting struggles); future research can examine this question and allow us to better refine supervision.

Our findings related to therapist warmth mesh with theory and previous research suggesting that experiences with a supportive person predict secure attachment (Bowlby, 1980; Sroufe et al., 2005a), and with Bowlby's (1988) theory that a positive relationship with an understanding, empathic therapist is key for change to occur in psychotherapy. Many mother-infant interventions have an explicit goal of providing a supportive relationship to the mother so that she will then be able to provide a similarly supportive relationship to her child, thus allowing the child to become securely attached. For instance, this is a principle that Pawl and St. John (1998) expressed as "Do unto others as you would have others do unto others" (p. 7).

Previous research using the VPPS has also highlighted the importance of therapist warmth. Specifically, findings indicated that clients with a poor prognosis tended to improve with warm therapists; clients with a good prognosis fared poorly if the therapist demonstrated a negative attitude (Bedics et al., 2005; Suh et al., 1989).

### **Limitations and Directions for Future Research**

It is important to note key limitations of the present study. First, the present study utilized a correlational research design. Thus, as noted above, it is impossible to ascertain the direction of effects.

Second, larger sample sizes and additional time points would be needed to use more sophisticated approaches to modeling changes in process variables over time and track

direction of effects between therapists and clients. Larger sample sizes would also allow testing of models that specify the nature of the relations among variables more precisely (e.g., meditational or moderational models).

In conclusion, the present study extends extant research on home visiting interventions by being the first to include observer-rated measures of both intervener and mother contributions to psychotherapy process, as well as psychometrically strong measures of mother's perceptions of the relationship. Notably, results of the present study provides initial evidence that some of the same relational processes that are relevant for individual psychotherapy may also be important to attend to in brief, preventive, mother-infant home visiting interventions, even when the clients are non-clinical, community samples. Specifically, consistent with Bowlby's (1988) theory, results of the present study suggest that higher levels of therapist warmth are related to more secure client attachment to the therapist, as well as higher levels of client participation and exploration.

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Intercorrelations Among Process Variables, Attachment to Therapist Dimensions, and Working Alliance, with Means and Standard Deviations of Principal Study Variables

Table 1

Measure	1	2	3	4	5	6	7	8	9
1. Client participation/engagement									
2. Client exploration	.59**								
3. Therapist warmth	.49**	.89**							
4. Therapist exploration	.43**	.90**	.91**						
5. Therapist negative attitude	.00	-.24*	-.17	-.28*					
6. CATS Secure	.10	.15	.27*	.22	.18				
7. CATS Preoccupied Merger	-.05	-.02	-.02	-.08	.26*	.37**			
8. CATS Avoidant Fearful	.00	-.06	-.17	-.15	-.12	-.74**	-.06		
9. WAI	-.07	.04	.15	.14	.14	.75**	.30*	-.66**	
<i>M</i>	12.22	8.42	10.10	9.22	3.00	72.78	36.31	17.83	74.37
<i>SD</i>	.85	1.68	1.12	1.43	.04	8.03	11.57	6.31	8.70

Note. *N* = 79 for process variables, *N* = 61 for CATS variables and WAI because funding to collect maternal self-report data arrived after data collection had already begun.

\* *p* < .05, two-tailed.

\*\* *p* < .01, two-tailed.