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## Therapist mindfulness, alliance and treatment outcome

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### Abstract

The present study investigated the association between therapist dispositional mindfulness and therapist self-affiliation, the therapeutic alliance, and treatment outcome. Total therapist mindfulness was associated with therapist self-affiliation,  $r = .413$ ,  $p < .05$ . Therapist mindfulness was positively correlated with therapist ratings of the working alliance,  $r = .456$ ,  $p < .05$ , though only the Act with Awareness subscale showed a relationship with patient rated alliance,  $r = .379$ . Therapist mindfulness was not associated with patient rated decreases in global symptomatology, but was associated with patient rated improvements in interpersonal functioning,  $r = .481$ ,  $p < .05$ . All correlations correspond to a medium effect size. The results indicate that therapist dispositional mindfulness may be an important pre-treatment variable in psychotherapy outcome.

**Keywords:** mindfulness; therapist characteristics; treatment outcome; working alliance

Mindfulness is most commonly defined as the ability to bring one's attention to experiences occurring in the present moment, with complete acceptance and without judgment (Aronson, 2004; Brown & Ryan, 2003). Methods for cultivating mindfulness have their origins in eastern spiritual traditions, with meditation practice the most common approach. Proponents of mindfulness tout its ability to increase awareness, insight, wisdom and compassion (Goldstein, 2002; Kabat-Zinn, 2000). Empirical evidence is beginning to demonstrate a relationship between mindfulness and various indicators of well-being, among them emotional intelligence, attention to and clarity of feelings, improvements in mood, openness to experience, conscientiousness and life satisfaction (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003). Mindfulness has also been found to be positively correlated with psychological-mindedness, self-awareness, compassion and empathy (Beitel, Ferrer, & Cecero, 2005; Sweet & Johnson, 1990), and negatively correlated with neuroticism, social anxiety, rumination, difficulty identifying and describing feelings, dissociative experiences and experiential avoidance (Baer et al., 2004; Brown & Ryan, 2003).

As mindfulness continues to demonstrate a relationship with physical and psychological outcomes, traditional practices are being modified for medical and mental health settings and incorporated into therapeutic interventions (Baer, Smith, Hopkins, Kitemeyer, & Toney, 2006). Among them are the Mindfulness Based Stress Reduction Program (MBSR; Kabat-Zinn et al., 1992), Dialectical Behavior Therapy (DBT; Linehan, 1993a, 1993b), Mindfulness Based Cognitive Behavioral Therapy (MBCT; Segal, Williams, & Teasdale, 2001), and Acceptance and Commitment Therapy (ACT; Hayes, Strosdahl, & Wilson, 1999). Mindfulness may be incorporated into psychotherapy in a variety of ways. A therapist can incorporate meditation techniques (such as breathing exercises) into sessions to alleviate stress or anxiety, or use a developed mindfulness intervention as part of treatment. They may also encourage their clients to take up regular meditation practice outside therapy as an adjunct to treatment. Maintaining a personal meditation practice has been shown to have many benefits such as reductions in stress, anxiety or depression (Astin, 1997; Shapiro, Schwartz, & Bonner, 1998), increased adaptability to new

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experiences or environments (Astin, 1997), and the ability to bring the body into a relaxed state (Lazar et al., 2000).

While research has begun to demonstrate the efficacy of mindfulness training as a therapeutic intervention for a variety of patient problems, less is known about the potential role of mindfulness on therapist skill and efficacy. A central component of mindfulness practice involves learning to observe one's own internal experience (including feelings, thoughts and images) without judging or becoming preoccupied with it. This process includes developing an attitude of self-acceptance and self-compassion, or what is referred to in eastern literature as "friendliness towards the self" (Gunaratana, 1996, p. 186). This in turn may promote an attitude of acceptance and compassion towards others (Fulton, 2003; Germer, Siegel, & Fulton, 2005; Magid, 2002; Safran, 2006; Safran & Muran, 2000; Safran & Reading, 2008; Siegel, 2007; Welwood, 2000). Mindfulness meditation has also been found to promote empathy and compassion, both desirable therapeutic interpersonal qualities that are not always easy in practice (Kristeller & Johnson, 2005). Associations between mindfulness and positive interpersonal attributes, such as warmth, attentiveness, engagement and genuineness (Hayes, Follette, & Linehan, 2004) suggest that mindfulness may be a particularly effective tool for cultivating and maintaining desirable therapist characteristics (Siegel, 2010; Sweet & Johnson, 1990; Wallin, 2007). Similarly, the relationship between mindfulness and self-acceptance may translate into higher levels of therapist acceptance with their patients (Safran & Muran, 2000).

Another important factor in therapy is the therapist's level of attention, a topic that emerged early on in psychoanalytic thought. In 1912, Freud proposed evenly hovering attention as a critical therapeutic skill. Reik (1948) elaborated on this idea, emphasizing the importance of not fixating attention on any particular subject or object and learning to suspend critical judgment (1948). Modern theorists have continued to offer such recommendations, among them: the therapist should approach each session free of expectation or desire (Bion, 1962), and the therapist should be aware of their own associations to what emerges from the patient in-session (Ogden, 1994). Despite this ongoing interest in the subject, the ability to maintain focused attention is a known challenge for many therapists (Germer, 2005). Mindfulness meditation offers a highly sophisticated method for both directing attention and engaging in self-exploration to facilitate awareness. Given this, it has been identified as a potential technique for training therapist's to

cultivate an ideal observational stance (Epstein, 1995; Rubin, 1996; Safran & Muran, 2000).

Bruce, Manber, Shapiro & Constantino (2010) review a variety of ways in which increased levels of therapist mindfulness can foster the development of positive relational experiences with patients. Of particular interest is the potential relationship between therapist mindfulness and the development of the working alliance. The alliance is one of the more robust predictors of treatment outcome identified to date, with several meta-analytic reviews demonstrating its moderate but consistent impact, with effect sizes ranging from .22 to .26 (Horvath & Bedi, 2002; Horvath, Del Re, Flückiger, & Symonds, 2011; Lambert & Barley, 2002; Martin, Garske, & Davis, 2000).

Therapist attributes such as warmth, interest, genuineness and acceptance have all been found to be related to stronger therapeutic alliances (Ackerman & Hilsenroth, 2003). The association between mindfulness and positive interpersonal attributes, such as warmth, attentiveness, engagement and genuineness (Hayes et al., 2004; Siegel, 2010; Sweet & Johnson, 1990; Wallin, 2007) suggests that mindfulness practice may be a helpful tool for cultivating and maintaining therapist qualities that contribute to the development of positive working alliances. Bruce et al. (2010) also recommended mindfulness practice as a useful addition to training programs designed to help therapists refine their ability to work constructively with alliance ruptures that emerge in psychotherapy. Following Safran and Muran's (2000) suggestions, they recommend mindfulness practice as a useful addition to training programs designed to help therapists refine their ability to work constructively with alliance ruptures that emerge in psychotherapy. Safran and Muran (2000) suggest that such training can facilitate therapists' ability to attend to, accept and make constructive use of negative countertransference feelings that may be contributing to alliance ruptures.

Unfortunately, there is a dearth of studies on therapist mindfulness and its impact on psychotherapy. Preliminary empirical evidence has been found that providing therapists with formal mindfulness training increases therapist attention, comfort level with prolonged silences, self-awareness, and patient symptom amelioration (Grepmaier et al., 2007; Lesh, 1970, Schure, Christopher, & Christopher, 2008; Shapiro et al., 1998). To date, however, there have been no studies that have examined the effects of therapists' pre-training, dispositional level of mindfulness, which may play a role in therapist effectiveness.

The current study is preliminary in nature and designed to evaluate a number of hypotheses

regarding therapist mindfulness, therapist self-acceptance, therapeutic process and outcome. To this end we assessed both therapists' baseline level of mindfulness and therapists' attitudes towards the self prior to beginning treatment. Given the theory that mindfulness is associated with self-acceptance and self-compassion (Kristeller & Johnson, 2005; Siegel, 2007), we expected that therapists who were more self-affiliative would show higher degrees of trait mindfulness. We also hypothesized that higher therapist baseline levels of mindfulness would be predictive of stronger therapeutic alliances and better outcome.

## Method

### Participants

**Patients.** Data from 26 patient-therapist dyads were included in the study. Participants were drawn from an ongoing research project at the Brief Psychotherapy Research Program, which is housed in the psychiatry department of Beth Israel Medical Center in New York City. Only patient-therapist dyads that had completed and returned all of the relevant measures over the time period during which a self-report measure of therapist mindfulness was administered were included in this study. Patients represent a community sample, largely recruited through a newspaper advertisement offering low-fee psychotherapy for individuals willing to participate in a research project. Patients are also drawn from affiliated provider or program referrals, or may have come across the project website through a self-guided internet search. Patients are screened for inclusion criteria during a brief phone interview, followed by the Structured Clinical Interview for DSM-IV (SCID I and II; First, Spitzer, Gibbon, & Williams, 1995), which was used to determine diagnosis. Inclusion criteria for the program are

that the patient is between the ages of 18 and 65, is willing to be videotaped and complete a series of questionnaires during the course of treatment, and is proficient in the English language. Patients are excluded when any of the above are present: organic brain syndrome or mental retardation, psychosis or need for psychiatric hospitalization, active suicidal ideation or severe depression, Bipolar Disorder, a significant medical condition that would impair participation, active substance abuse, a history of violent or impulsive behavior, or the use of psychotropic medication with a dosage that has not been stabilized for a minimum duration of 3 months. Participants consisted of 17 women and nine men between the ages of 24 to 68 (median age 48). The majority of participants were single (57.7%), followed by married (26.9%), and divorced (15.4%). The majority of the sample were Caucasian (92.3%) and well-educated, holding at least a college-level degree (77%). Psychiatric diagnoses for the sample were derived from SCID interviews and are presented in Table I.

**Therapists.** Therapists consisted of psychology externs, interns, psychiatry residents, and licensed clinical psychologists at Beth Israel Medical Center. Participants included 18 female and eight male therapists. Twenty therapists were advanced clinical psychology trainees, four were psychiatry residents, and one was a licensed clinical psychologist. The licensed clinical psychologist was the most experienced therapist, reporting 6 years of training or practice. The majority of the trainees (57.7%) had less than 2 years of clinical experience, with the remaining trainees (19.2%) having between 2 and 5 years of experience. Five therapists chose not to report their years of experience. At total of 26 therapists were randomly assigned to provide one of two treatment interventions: 12 therapists were assigned to Brief Relational Therapy (BRT;

Table I. Sample diagnostic characteristics

	<i>n</i>	%
Axis I diagnoses		
Depressive Disorder	15	57.7
Anxiety Disorder	6	23.2
Adjustment Disorder	2	7.7
Body Dysmorphic Disorder	1	3.8
Other	1	3.8
None	1	3.8
Axis II diagnoses		
Personality Disorder NOS	9	34.7
Avoidant PD	3	11.5
Obsessive Compulsive PD	3	11.5
Negativistic PD	1	3.8
Depressive PD	1	3.8
None	9	34.7

Safran, 2002; Safran & Muran, 2000), and 14 therapists were assigned to Cognitive-Behavioral Therapy (CBT; Beck, Rush, Shaw, & Emery, 1979). Adherence to therapy modality was confirmed by trained members of the program's research staff, who were blind to the assigned treatment condition (see Muran, Safran, Samstag, & Winston, 2005, for details). Both conditions consisted of 30 sessions of therapy, with sessions occurring approximately once per week. All therapists participated in weekly 90-minute group supervision sessions.

## Measures

**Therapist mindfulness.** The *Kentucky Inventory of Mindfulness Skills* (KIMS; Baer et al., 2004) is a 39-item scale used to assess baseline "trait" level of mindfulness. Mindfulness is operationalized as a multidimensional construct consisting of four separate factors: Observing, which focuses on observing and attending to internal and external stimuli; Describing, which refers to the ability to verbally label these experiences without judgment; Acting with Awareness, the ability to act on or participate in one thing at a time with mindful awareness; and Accepting or Allowing Without Judgment, the ability to refrain from labeling experiences as "good" or "bad" and accepting reality to be as it is without trying to change it. The scale is designed to capture day-to-day mindfulness levels in the general population. Respondents indicate their level of agreement with each item using a Likert scale of 1 (Never, Rarely True) to 5 (Very Often or Always True). Higher scores reflect greater trait mindfulness, up to a maximum score of 195. The KIMS has demonstrated reliability and validity, with factor analysis confirming the four components of the measure and alpha coefficients for the subscales ranging from .83 to .91 (Baer et al., 2004). Its validity for use in clinical populations has also been established (Baum et al., 2010).

**Therapist attitudes towards self.** The *INTREX Questionnaire-short form* (Benjamin, 1988) was administered. The INTREX is a self-report questionnaire derived from Benjamin's Structural Analysis of Social Behavior (SASB) circumplex model (Benjamin, 1974). The measure consists of 16 items through which respondents rate the way in which they act towards themselves. The two major underlying dimensions are self-affiliation and self-control. The two poles of the self-affiliation dimension are self-loving versus self-hating. The two poles of the self-control dimension are self-controlling versus granting oneself autonomy. For the present study, only the introject surface was examined. Each item

on the INTREX is rated twice, once describing yourself "at your best" and once "at your worst." Scores range from 0 to 100, with ratings of less than 50 indicating the statement is false and ratings greater than 50 indicating that the statement is true. There has been substantial research demonstrating the psychometric properties of the scale, with the Intrex manual reporting strong test-retest reliability among patient and control samples (Benjamin, 1988). The measure yields internal consistency alphas ranging from .67 to .90, and construct validity has been demonstrated as well (Benjamin, Rothweiler, & Critchfield, 2006). Previous research has found that ratings of "self at worst" have more predictive power than ratings of "self at best," and that therapists with more negative ratings on the self-affiliation dimension (i.e., ratings of greater hostility towards the self) exhibit more negative interpersonal process in treatment with their patients (Henry, Schacht, & Strupp, 1990).

**Psychotherapy process.** The *Working Alliance Inventory* (WAI; Horvath & Greenberg, 1989) is a widely used measure of the strength of the alliance between the patient and therapist. The current study used the short-form of the original 36-item WAI, which consists of 12 items and has been shown to correspond to scores on the full version (Tracey & Kokotovic, 1989). It is grounded in Bordin's (1979) tripartite conceptualization of the working alliance, yielding three subscales—agreement on tasks, agreement on goals, and quality of therapeutic bond. Respondents indicate their level of agreement with each statement on a Likert scale ranging from 1 (Not at all) to 7 (Completely), with high scores reflecting a strong working alliance. The WAI has been used extensively as a measure of the therapeutic alliance, and its validity has been established both with evidence of high correlations with other measures of the alliance and as a predictor of treatment outcome (Horvath & Symonds, 1991). Internal consistency has been found to be high for both total WAI scores and for the three subscales, with alpha coefficients ranging from .85 to .96 (Horvath & Greenberg, 1989; Tichenor & Hill, 1989). Both patient and therapist self-reported WAI scores were used in the study.

**Psychotherapy outcome.** Treatment outcome can be assessed on multiple dimensions from both patient and therapist self-report perspectives. Since correlations of KIMS and therapist rated outcome could be partially attributable to method variance, and in order to reduce the possibility of committing a Type I statistical error, we chose to focus on patient rather than therapist measures of

psychotherapy outcome for this study. We focused on two domains of outcome: degree of improvement in symptomatology and degree of improvement in interpersonal functioning.

The *Symptom Checklist Revised-90* (SCL-90; Derogatis, 1983) was employed to assess outcome on the symptom dimension. The SCL-90 contains 90 items and the respondent provides a Likert scale rating of 0 to 4 indicating the presence and amount of distress associated with each symptom. It yields three global indices across nine primary symptom dimensions. The Global Severity Index (GSI) is the mean of all 90 items and can be used as a single indicator of overall psychological distress (Derogatis, 1983). The scale is widely used and has been shown to have high internal consistency and reliability (Nguyen, Atkinson, & Stenger, 1983; Rosen et al., 2000). Derogatis (1983) has reported coefficient alphas ranging from .77 to .90 and test-retest reliability scores between .80 to .90 over the period of 1 week.

The *Inventory of Interpersonal Problems-32* (IIP-32; Horowitz, Alden, Wiggins, & Pincus, 2000) is a 32-item scale used to describe interpersonal functioning, a common focus of psychotherapy. The IIP-32 yields a total score of interpersonal functioning as well as eight scales—overly autocratic, competitive, cold, introverted, subassertive, exploitable, nurturant, and expressive. The IIP-32 has demonstrated high internal consistency, ranging from .82 to .94, and high test-retest reliability (Horowitz et al., 2000). For this study we focused on the total score as we were interested in measuring overall interpersonal functioning.

### Procedure

The measures used in the current study are part of standard assessment packets completed by patients and therapists who participate in the Brief Psychotherapy Research Program. Therapy sessions are structured to include sufficient time for filling out questionnaires. Patients are scheduled for a 1 hour meeting, with 45 minutes dedicated to psychotherapy, and 15 minutes allotted for measure completion at the end of the session. Patients and therapists fill out measures separately and return them to locked drop-boxes in the waiting room. Therapists filled out the Kentucky Inventory of Mindfulness Skills and INTREX prior to beginning treatment. Both therapists and patients filled out the Working Alliance Inventory at the end of the third session of therapy. Patients completed the SCL-90 and the Inventory of Interpersonal Problems at intake and at termination.

## Results

### Preliminary Analyses

Cognitive Behavioral Therapy (CBT) and Brief Relational Therapy (BRT) treatment conditions have been shown to be equally effective (Muran et al., 2005). A series of independent sample *t*-tests revealed no significant differences between conditions on the following variables: total therapist mindfulness,  $t(23) = .850, p = .40$ ; patient working alliance at session 3,  $t(23) = .04, p = .97$ ; therapist working alliance at session 3,  $t(23) = .58, p = .58$ ; SCL-90 scores at termination,  $t(23) = .65, p = .52$ ; and IIP mean scores at termination,  $t(23) = .612, p = .55$ . Given the lack of significant differences across outcome variables, the two treatment conditions were collapsed for subsequent data analysis. Total KIMS scores were used in all analyses. Because the KIMS is composed of four empirically-derived factors (Baer et al., 2004), we also used the four subscale scores in our analyses to assess the differential associations of each mindfulness component.

Analyses were run to investigate the role of therapist experience on baseline mindfulness. Correlations between years of experience and all five mindfulness variables (i.e. the four subscales and the total score) were non-significant, with KIMS Total at  $r = .024, p = .921$ . KIMS Observe did show a trend-level association with therapist experience,  $r = .396, p = .084$ . Of note, this relationship was in the opposite direction than would have been expected, suggesting that therapist experience was not accounting for mindfulness scores.

### Therapist Mindfulness and Therapist Self-affiliation

To investigate the potential relationship between therapist mindfulness and therapist self-affiliation, we examined the correlation between the self-affiliation dimension of the INTREX and scores on the Kentucky Inventory of Mindfulness Skills (KIMS). Following Henry et al.'s (1990) recommendations, all KIMS scores were correlated with the "at your worst" ratings of therapist introject on the INTREX-short form. Therapist total mindfulness scores were computed ( $M = 133, SD = 15$ ), with scores ranging from 107 to 169. Scores were also calculated for the total KIMS and then for each of the four components of mindfulness: Observe ( $M = 37.8, SD = 7.4$ ), Describe ( $M = 31, SD = 5.2$ ), Act with Awareness ( $M = 30.3, SD = 5.3$ ), and Accept without Judgment ( $M = 32.7, SD = 7.3$ ). Given the directional nature of our hypotheses, all significance levels reported are at the one-tailed level.

Total therapist mindfulness scores were associated with therapist INTREX self-affiliation,  $r = .413$ ,  $p < .05$ . Scores on the Act with Awareness subscale were correlated with scores on therapist affiliation “at your worst,”  $r = .449$ ,  $p < .05$ , and scores on the Accept without Judgment subscale were positively correlated with therapist affiliation “at your worst,”  $r = .525$ ,  $p < .05$ . Both correlations represent a medium effect size, with Act with Awareness scores accounting for 20.2%, and Accept without Judgment accounting for 27.6% of the variance in therapist affiliation scores. No significant relationships emerged between therapist affiliation and the remaining two subscales of the KIMS, Observe and Describe.

### Therapist Mindfulness and the Working Alliance

Previous research has demonstrated that the quality of the therapeutic relationship is well established by the third session of treatment in time-limited therapy (O'Malley, Suh, & Strupp, 1983). One-tailed Pearson correlations were used to determine if a relationship existed between therapist mindfulness and patient and therapist ratings of the working alliance. A relationship emerged between therapist mindfulness scores as measured by the KIMS and patient and therapist ratings of the working alliance as measured by the WAI at session 3. Total therapist mindfulness was positively correlated with therapist ratings of the working alliance,  $r = .456$ ,  $p < .05$ . The relationship between therapist total mindfulness and patient-rated alliance scores approached significance,  $r = .219$ ,  $p < .08$ .

A positive correlation emerged between the mindfulness subscale Accept without Judgment and therapist ratings of the working alliance,  $r = .595$ ,  $p < .01$ . This represents a large effect size, with scores on the Accept without Judgment subscale accounting for 35.4% of the variance in therapist rated alliance. A positive correlation also emerged between the mindfulness subscale Act with Awareness and patient ratings of the working alliance,  $r = .379$ ,  $p < .05$ , representing a medium effect size. Scores on the Act with Awareness subscale

accounted for 14.4% of the variance in patient rated alliance. Table II details the associations between mindfulness components and patient and therapist ratings of the working alliance.

### Therapist Mindfulness and Treatment Outcome

To examine the association between therapist mindfulness and treatment outcome, residual gain scores from intake to termination were calculated for each of the outcome measures. Missing data were minimal, less than 5% for all measures across respondents. To adjust for missing data, the series mean of the measure was imputed in place of missing values. Therapist mindfulness yielded an overall global score as well as individual scores for each of the four subscales. Pearson's  $r$  correlations were conducted to examine the relationship between each of the four mindfulness components with residual gains at termination.

Therapist total mindfulness was significantly negatively correlated with patient reported change on the IIP-32,  $r = .481$ ,  $p < .05$ , indicating a positive relationship between therapist mindfulness and overall changes in interpersonal functioning (see Table III). The Accept without Judgment subscale of the KIMS showed significant correlations with patient reported improvement on the IIP-32.,  $r = .547$ ,  $p < .05$ . Scores on this subscale accounted for 30% of the variance in patient-rated improvement in interpersonal functioning. Correlations between therapist mindfulness and patient self-report on the SCL-R-90 yielded no significant results. No significant relationships emerged for the Observe, Describe, or Act with Awareness subscales.

### Discussion

In the current study, therapists with higher levels of trait mindfulness were found to report higher levels of positive self-affiliation (or friendliness towards the self). Since these data are correlational no inferences can be made regarding the direction of influence. It is possible that the presence of an affiliative attitude towards the self facilitates positive traits like

Table II. Therapist mindfulness and patient and therapist ratings of the working alliance

	Therapist WAI rating session 3	Patient WAI rating session 3
KIMS-Total Mindfulness	.456*	0.291
KIMS-Observe	0.119	0.119
KIMS-Describe	0.083	0.104
KIMS-Act with Awareness	0.261	.379*
KIMS-Accept without Judgment	.595**	0.147

\*  $p < .05$ , \*\*  $p < .01$ , one-tailed.

Table III. Therapist mindfulness and psychotherapy outcome

	KIMS Total Mindfulness	KIMS Observe	KIMS Describe	KIMS Act with Awareness	KIMS Accept without Judgment
SCL-R-90 patient rating	0.163	0.197	0.227	-0.045	-0.187
IIP-32 patient rating	-0.481*	0.076	-0.035	-0.087	-0.547*

\*  $p < .05$ .

dispositional mindfulness, but the reverse could also be true. There could also be a third factor which explains the strong correlation. When we examine the correlations between the individual subscales of the KIMS, an interesting pattern emerges. The first and most notable pattern is that the "Act with Awareness" and "Accept without Judgment" subscales are the only ones contributing to the variance in most of the analyses. While both subscales were associated with therapist self-affiliation, differential associations on ratings of the alliance and outcome emerged. Only Act with Awareness was correlated with patient-rated alliance, while Accept without Judgment was the only KIMS subscale correlated with therapist-rated alliance.

The association between Act with Awareness scores and patient-rated alliance suggest that therapists' sustained attention and focus may positively impact patients' perceptions of the working alliance and may be more important than observation or description. Items on this subscale reflect the ability to maintain focused attention, the tendency to get absorbed in the present task, and a lack of distractibility or wandering mind. The importance of awareness in psychotherapy is theoretically consistent with the ideal therapeutic observational stance (Safran & Muran, 2000) and the notion of dyadic attunement (Siegel, 2007), which require an individual to be directly aware of their own experience while simultaneously in tune with the experience of others. Therapeutic attunement may positively impact alliance scores by allowing the patient to feel seen and heard (Siegel, 2007). The association between Accept without Judgment and therapist-rated alliance may reflect the possibility that self-accepting therapists are less critical when it comes to evaluating their own ability to cultivate an alliance. Items on this subscale capture a lack of judgment and criticism of one's thoughts or feelings, the desire to categorize or change one's present experience, and self-approval.

In contrast to our expectations, we failed to find a significant relationship between therapist mindfulness and symptom amelioration as measured by the SCL-R-90. We did, however, find that both total mindfulness scores and scores on the Accept without Judgment subscale were significantly correlated with

improvement in interpersonal functioning as measured by the IIP. Since the IIP specifically assesses distress in the interpersonal realm, one possible explanation for the discrepancy in our findings regarding the relationship between mindfulness and the two measures of outcome is that whatever mechanism underlies the impact of mindfulness on therapeutic process is more relevant to the interpersonal sphere than global distress. This is only speculation, however, and further investigation will be required to clarify the meaning of this finding, if replicated in future research. Finally, The Accept without Judgment scale emerged as the most robust and the strongest predictor across analyses. This finding, in conjunction with the finding that therapists' Total Mindfulness scores were significantly correlated with higher levels of self-affiliation on the INTREX, suggests a potentially unique relationship between therapist mindfulness, self-acceptance, and psychotherapy process and outcome that warrants further exploration.

There are several limitations to the current study. First, the sample size utilized in the study was relatively small. Second, we collapsed the data from therapists administering two different treatment modalities (CBT and BRT). Although there were no significant differences in the average KIMS scores of therapist in these two modalities, this does not rule out the possibility that therapist mindfulness plays different roles in different modalities. The limited sample size, however, did not allow us to examine the possibility of mindfulness by treatment modality by treatment process/outcome. Unfortunately, we did not systematically assess whether any of the therapists in the study had previous mindfulness training. We were thus unable to assess whether variability in therapist base levels of mindfulness prior to treatment was influenced by this factor.

Despite these limitations, our results provide some promising preliminary findings. Therapist total mindfulness was positively associated with therapist self-affiliative attitudes (as measured by the INTREX) and with therapist ratings of third session working alliance. It was not significantly associated with patient-rated alliance (although the results approached significance for the total KIMS score,

and were significant for the Act with Awareness subscale of the KIMS). Finally, we found partial support of our hypothesis regarding the relationship between therapist mindfulness and treatment outcome.

Mindfulness research to date has focused primarily on cultivating patient mindfulness to facilitate improved health outcomes, with little research exploring the role mindfulness might play on the other side of the couch. While mindfulness practice has been shown to help cultivate desirable therapist characteristics (Kristeller & Johnson, 2005; Siegel 2007, 2010; Sweet & Johnson, 1990; Wallin, 2007), dispositional mindfulness may also be useful in determining therapists' innate ability. The current study represents a preliminary attempt to link therapist mindfulness to psychotherapy process and outcome. Further research is required to replicate these findings with larger samples and different treatment modalities, and to examine the role of mindfulness as a baseline predictor of therapeutic skill or as a skill that can be cultivated in the course of clinical training. It would be interesting to examine the impact of mindfulness training on therapists' awareness of countertransference and changes in attitude towards self over time. Given the existing evidence that therapists with negative self attitudes are more likely to display countertherapeutic interpersonal process in sessions with their patients (Henry et al., 1990), it is possible that the cultivation of a mindfulness practice may be useful in helping therapists improve their rupture resolution skills, which may in turn lead to decreases in negative therapy process and improvements in treatment outcome.

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