USING PRE-SESSION MINDFULNESS TO IMPROVE THERAPY PRESENCE

Rose A. Dunn, B.A.

Thesis Prepared for the Degree of

MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS

August 2012

APPROVED:

Jennifer L. Callahan, Major Professor
Randall J. Cox, Committee Member
Kenneth Sewell, Committee Member
Vicki Campbell, Chair of the Department of Psychology
Mark Wardell, Dean of the Toulouse Graduate School
Dunn, Rose A., *Using pre-session mindfulness to improve therapy presence*. Master of Science (Psychology), August 2012, 52 pp., 2 tables, references, 48 titles.

While a significant amount of research illustrates the positive effects of therapists’ use of mindfulness, few studies have addressed whether therapists’ mindfulness actually improves psychotherapy outcomes. Additionally, no existing research has examined whether therapists’ use of a mindfulness exercise immediately before meeting with a client could also have a positive impact on the following session. The purpose of this study was to test whether engaging in a centering exercise 5-10 minutes before a session could have a positive impact on therapy, in particular on the therapists’ ability to remain present in session. Results indicated that the trainee therapists did not report changes in mindfulness after the brief mindfulness training program. Results also indicated that completing the centering exercise before a session did not appear to impact client ratings of therapeutic presence and session outcomes. The results suggest that more intensive training in mindfulness may be necessary to impact psychotherapy outcomes.
Copyright 2012

by

Rose A. Dunn
# TABLE OF CONTENTS

LIST OF TABLES .................................................................................................................................................. v

I. INTRODUCTION .............................................................................................................................................. 1

The Dose-Effect Relationship in Psychotherapy ......................................................................................... 1

Mindfulness in Psychotherapy Research ......................................................................................................... 3

The Present Study ............................................................................................................................................ 4

II. REVIEW OF THE LITERATURE .................................................................................................................. 6

The Dose-Effect Relationship in Psychotherapy ......................................................................................... 6

Building on Howard et al. (1986) .................................................................................................................... 7

Trends in Dose-Effect Methodology ................................................................................................................ 8

Impact of Dose-Effect Research on Clinical Practice .................................................................................... 10

Shape of the Dose-Effect Curve ....................................................................................................................... 12

Howard et al.’s (1986) Contributions to Psychotherapy Research ............................................................... 14

Mindfulness in Psychotherapy Research ......................................................................................................... 16

Effects of Mindfulness on Psychotherapy Outcomes ...................................................................................... 16

Suggestions to Improve Clinical Training with Mindfulness ........................................................................ 18

Mindfulness Training Research ....................................................................................................................... 19

Methodological Issues and Directions for Future Research ........................................................................ 23

The Present Study ........................................................................................................................................... 24

III. METHODOLOGY .......................................................................................................................................... 27
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of Sessions Needed to Achieve a 50% Client Improvement</td>
<td>15</td>
</tr>
<tr>
<td>2. Summary of Psychotherapy Research Findings on Therapist Mindfulness</td>
<td>24</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

The use of mindfulness as an intervention for clients in psychotherapy has become popular and, in recent years, some have suggested that mindfulness may also be useful for therapists. It has been hypothesized that mindfulness practice by therapists could improve their ability to remain focused and present with their clients, which in turn could lead to improved therapy outcomes. However, little empirical research has investigated this hypothesis. The goal of the study is to examine whether pre-session mindfulness practice by therapists leads to these positive results. In this chapter, a brief summary of the salient literatures pertaining to psychotherapy outcomes and mindfulness in psychotherapy research is offered to set the stage for the study. Chapter II provides more detailed and comprehensive reviews of these bodies of literature for the interested reader.

The Dose-Effect Relationship in Psychotherapy

Howard, Kopta, Krause, and Orlinsky’s (1986) seminal article that showed a relationship between treatment length and client outcome made major contributions to psychotherapy research and spawned a wave of effectiveness research that has helped psychotherapy gain appreciation as an empirically supported health care profession (Kopta, 2003). Of particular significance, and using the dose-effect model, McNeilly and Howard (1991) were able to refute Eysenck’s (1952) claim that the effect of psychotherapy is no greater than that of spontaneous remission.

Building upon the work of Howard et al. (1986) several studies subsequently demonstrated the differential response rates of specific psychological symptoms, interpersonal problems, and depressive symptoms (Kopta, Howard, Lowry, & Beutler, 1994; Maling,
Gurtman, & Howard, 1995; Barkham et al., 2006). As new methodologies were introduced, including strict criteria for recovery, session-by-session assessment, and single sample design, dose-effect researchers were able to overcome the limitations found in previous studies and provide more meaningful findings.

Studies using the evolved methodology showed a significantly lower dose-effect relationship than what was reported in Howard et al. (1986) (Kopta et al., 1994; Kadera, Lambert, & Andrews, 1996). Anderson and Lambert (2001) built on Kadera et al.’s (1996) research procedures by using survival analysis (Singer & Willett, 1991) along with clinical significance methodology to present a session-by-session analysis of change. Utilizing the current trends in dose-effect methodology, recent studies have presented a sharper focus of the dose-effect model by examining one of its central conclusions, the idea that the dose-effect curve is negatively accelerating. Barkham et al. (1996) proposed an alternate possibility, the good enough level (GEL) model which has received empirical support from subsequent studies (Barkham et al., 2006; Baldwin, Berkeljon, Atkins, Olsen, & Nielsen, 2009). The GEL model predicts that clients remain in treatment until they, in conjunction with their therapists, determine that they have sufficiently improved to a level they consider “good enough.”

Even though clinical research has demonstrated a relationship between treatment length and successful outcomes, it is unclear whether the dose-effect model has impacted actual clinical practice or whether it can be generalized across clinical settings. Limitations may arise when comparing clinical research samples with naturalistic samples, such as those in training clinics or other clinical practice settings. In examining the existing literature, these limitations become evident. More specifically, there are mixed conclusions on whether the findings from dose-effect research have actually impacted the outcomes in clinical practice (Hansen, Lambert, & Forman,
2002, 2003; Gray, 2003). Additionally, with respect to generalizability, Callahan and Hynan (2005) found that the dose-effect curve was attenuated in a training clinic. However, within the existing literature it does not appear that an attempt has been made to replicate this finding.

Mindfulness in Psychotherapy Research

Given the significant amount of research demonstrating the benefits of client based mindfulness interventions, mindfulness practices have become increasingly popular over the last two decades in the field of psychotherapy. However, only recently has research focused on the possible effects of therapist mindfulness on the therapeutic process and client outcomes. Existing research offers contradictory findings on whether therapist mindfulness improves client outcomes (Stanley et al., 2006; Grepmair et al., 2007). Similarly, other research offers mixed findings on whether therapist self-awareness is associated with positive therapeutic effects (Williams, 2008).

Despite the contradictory results on the relationship between therapist mindfulness and client outcomes, several researchers have proposed the potential use of mindfulness training as a means to improve the therapeutic process and address the shortcomings of traditional clinical training (Fauth, Gates, Vinca, Boles, & Hayes, 2007; Moore, 2008; Bruce, Manber, Shapiro, & Constantino, 2010). Additionally, a burgeoning amount of research has started to examine the efficacy of mindfulness training. Quantitative and qualitative analysis from several studies have found positive effects for therapists who completed mindfulness training, including improved counseling skills, increased empathy and compassion, and increased emotion regulation (Shapiro, Brown, & Biegel, 2007; Schure, Christopher, & Christopher, 2008; McCollum & Gehart, 2010; Aggs and Bambling, 2011; Davis & Hayes, 2011). However, a few studies have
demonstrated negative effects of therapist mindfulness, such as poor client outcomes and painful experiences when focusing on negative emotions (O’Driscoll, 2009).

Since research on therapist mindfulness is still in the nascent stages, there are a number of critical methodological issues that need to be addressed in future studies. At the most basic level, it would be appropriate to explore whether the conflicting findings regarding the impact of therapist mindfulness on client outcomes are due to the use of different methodologies. Another issue that should be considered is whether mindfulness research results can generalize across therapists with different training and experience levels. For example, Brown and colleagues (2011) found that third-wave cognitive behavioral therapists reported greater use of mindfulness techniques than second-wave therapists. Differences like these among therapists could result in differing effects of mindfulness training between groups. In addition, other limitations exist in mindfulness research, including difficulty conceptualizing and quantifying mindfulness (Grossman, 2008). To overcome these limitations in future research, Garland and Gaylord (2009) suggest that studies should utilize leading-edge empirical research methodologies to measure mindfulness such as neuroimaging technology and performance based, cognitive behavioral measures.

The Present Study

The goal of the study was to examine whether pre-session mindfulness practice by therapists improves client ratings of the following session. Following training on how to practice mindfulness, therapists logged their practice of mindfulness at home on a daily basis. In addition, therapists were assigned to either complete a centering exercise for 5-10 minutes prior to meeting with their clients or to engage in an alternative pre-therapy activity (e.g., check email). This study then examined if higher ratings of presence and session impact were attained for sessions
in which the therapist prepared through mindfulness. Additionally, the study investigated whether therapists’ levels of state and trait mindfulness improved after the 5 sessions of mindfulness training. This controlled study was intended to provide further understanding of how brief mindfulness training and exercises impact therapists’ levels of mindfulness and session outcomes. This research may also resolve the contradictory findings found in existing research in this area, with the potential findings from this study having important implications on future therapist training programs.
CHAPTER II

REVIEW OF THE LITERATURE

Over the past 25 years psychotherapy research has been largely devoted to investigating whether psychotherapy is effective and, if so, how it might be further improved. In this chapter, a review of one prominent line of effectiveness research is provided to set a historical context for the present study. With the effectiveness of psychotherapy being fairly well established, more recent research has examined specific factors that may improve psychotherapy. One of the factors that has been suggested as improving psychotherapy outcomes is clients’ practice of mindfulness. However, few empirical studies have tested the effects of therapist mindfulness on client outcomes. This chapter reviews those studies that have been conducted on therapist mindfulness before presenting the research questions associated with the proposed study on the use of therapist mindfulness practice pre-session to improve therapy presence.

The Dose-Effect Relationship in Psychotherapy

While there is a general consensus in psychotherapy research that treatment is typically beneficial to clients, there is a lack of information on how much treatment is enough to produce sufficient improvement in clients. To determine the relationship between the number of treatment sessions and client improvement, Howard and colleagues (1986) used probit analysis on 15 data sets that included 2,431 clients in individual psychotherapy. The results of this analysis showed that approximately 50% of clients are improved by 8 sessions and approximately 75% are improved by 26 sessions. A further analysis found differential responsiveness for different diagnostic groups with clients with depression responding at the lowest dosage, those with significant anxiety requiring a somewhat higher dosage, and more impaired clients (e.g., personality disorder or psychosis) requiring the highest dosage. Thus, this
Building on Howard et al. (1986)

After Howard et al. (1986) demonstrated how treatment length benefits outcome, McNeilly and Howard (1991) applied the dose-effect model to test Eysenck’s conclusion that the effect of psychotherapy is no greater than that of spontaneous remission. A probit analysis of rates of improvement by time of assessed improvement was conducted on Eysenck’s original panel of “untreated” clients and then compared with a probit analysis conducted on a panel of clients from the Howard et al. (1986) study. The results showed that psychotherapy was associated with significantly higher rates of improvement than the effects of spontaneous remission. While 50% of psychotherapy clients improved in less than 8 sessions, it took approximately 68 sessions for untreated clients to reach the 50% improvement rate. These findings empirically refuted Eysenck’s claim on a dosage basis and offered further support for the relationship between treatment length and outcome demonstrated in Howard et al. (1986).

Building on Howard et al.’s (1986) finding that diagnostic groups have differential response rates, Kopta, Howard, Lowry, and Beutler (1994) used the dose-effect model to examine the rates at which different psychological symptoms respond to psychotherapy treatment. Participants included 854 clients in individual psychotherapy. Symptoms in the acute distress class showed the highest average percentage of clients recovered across doses, whereas symptoms in the characterological class showed the lowest percentage. Similarly, chronic distress symptoms exhibited the fastest average response rate, while characterological symptoms exhibited the slowest. In this study, a typical client needed approximately 58 sessions to have a
75% chance of symptomatic recovery, which is significantly lower than the finding presented by Howard et al. (1986). The difference in findings may be due to the Kopta et al. (1994) study using clinical-significance criteria which is a more stringent standard than what Howard et al. (1996) used on their data.

Similar to Kopta et al.’s (1994) research on the differential response rates of symptoms, Maling, Gurtman, and Howard (1995) investigated how three categories of interpersonal distress respond to doses of psychotherapy by tracking client assessments across sessions of treatment. The participants included a sample of 307 clients and a nonclient sample of 1,093 undergraduates. Results found that the categories of interpersonal problems, like psychological symptoms, respond differently to increasing amounts of psychotherapy. Control problems showed the most rapid response to treatment with 45% of clients improved by Session 4 and a steady rate of improvement after Session 10. Almost 35% of clients in the detached category improved by Session 4, with a steady rate of improvement after Session 17. Self-effacing problems appeared to be unresponsive to therapeutic dosage with 25% of clients improving at Session 4, but little overall improvement beyond that. The Kopta et al. (1994) and Maling et al. (1994) findings suggest that clinicians and mental health policy-makers should consider clients’ individual symptoms and problems when determining how much therapy is necessary for sufficient improvement.

Trends in Dose-Effect Methodology

While Howard et al.’s seminal study sparked an increased amount of interest in the dose-effect relationship, Kadera and colleagues (1996) pointed out that little criticism had been made about the study despite its shortcomings. Kadera et al. (1996) addressed the limitations that they saw as most significant when they tested the predictive accuracy of previous estimates of the
psychotherapy dose-effect relationship. The researchers monitored session-by-session changes in 45 clients. Their analyses found that 7% of clients recovered after 4 sessions, 22% after 8 sessions, and 44% after 13 sessions. Like the Kopta et al. (1994) study, these findings show a significantly lower dose-effect relationship than the findings by Howard et al. (1986). This study introduces new methodology for examining the dose-effect relationship, including strict criteria for recovery, session-by-session assessment, and single sample design. The methodology used in this study overcomes the limitations present in previous studies, which provides clinicians and policy-makers with more accurate estimates of how much treatment is necessary.

In addition to the methodologies introduced by Kadera et al. (1996), Singer and Willett (1991) offered the first unified presentation of survival analysis that focuses on study design and data analysis, while also outlining issues researchers face and providing guidelines for making knowledgeable decisions about them. Research focused on whether and when events occur, such as dose-effect research, face distinct design and analytic difficulties, including the core issue of censored observations (the people for whom the target event does not occur before data collection ends). The methods of survival analysis overcome these research obstacles and allow researchers to describe patterns of occurrence, compare these patterns among groups, and build statistical models of the risk of occurrence over time. The presentation encourages the use of survival analysis by providing researchers with a further understanding of how to implement these methods in research.

As seen in Anderson and Lambert’s (2001) study, statistical analysis can provide meaningful results when applied to dose-effect research. Anderson and Lambert (2001) applied survival analysis to data obtained from 75 clients in therapy in order to determine the number of sessions required to attain clinically significant change (CSC). In this study, CSC was
conceptualized as a change in score that exceeded the known measurement error for a reliable measure and required that the score change from the clinical range to the non-clinical range on that measure. Survival analysis indicated that 50% of clients would reach CSC by 11 sessions, but when the data from this study were combined with those from a previous study (Kadera, Lambert, and Andrews, 1996), survival analysis indicated that the 50% level was reached by 13 sessions. In addition, findings from the combined sample showed a significant relationship between severity of disturbance and time required to reach CSC. Results from the six-month follow-up found that CS gains appeared to be maintained. This study demonstrates the application of survival analysis to dose-effect psychotherapy data and offers advice for utilizing survival analysis in future research.

Impact of Dose-Effect Research on Clinical Practice

Although a considerable amount of research has demonstrated a relationship between treatment length and successful outcome, it is less clear how dose-effect research applies to actual clinical practice. To address this issue, Hansen and colleagues (2002) provided a review of the dose-response literature to 1) identify the relationship between treatment duration and treatment outcome, 2) present a summary of 28 randomized clinical trials to demonstrate expected treatment outcomes under optimal treatment conditions, and 3) compare the dose-response research findings with naturalistic data to examine whether research findings are being applied to actual clinical practice. The review of the dose-response research revealed that between 13 and 18 sessions of psychotherapy are needed for 50% of clients to improve. The review of the clinical trials literature showed that between 57.6% and 67.2% of clients improve within an average of 12.7 sessions. However, naturalistic data from a national database of over 6,000 clients revealed that clients had only a 20% improvement rate and received, on average,
less than 5 sessions of treatment. These findings show that most clients do not receive enough
treatment to reach adequate recovery rates and provides support for the conclusion that research
does not impact everyday clinical practice.

Gray (2003) disputes this claim stating that Hansen’s argument on the research-practice
gap was based on the incorrect assumption that naturalistic settings and clinical trials are
comparable samples. Gray explains that up to 50% of clients in naturalistic settings are either in
the normal or mild ranges, while no clients in clinical trial samples are in the normal range. Thus,
a significant percentage of clients from the naturalistic sample cannot “recover” because they are
already in the normal range. According to Gray’s analysis, when initial level of severity is
controlled for in Hansen’s data, outcomes in naturalistic samples and clinical trial samples are
comparable.

Hansen, Lambert, and Forman (2003) address three of the limitations raised by Gray,
including 1) using clinical significance, it is difficult to measure treatment gains made by clients
who are already within the functional range when they begin treatment; 2) the end point
assessment data used by Hansen et al. (2002) does not include the effect of the last session; and
3) for people beginning treatment in the most severely dysfunctional range, the effect size is
large. Hansen and colleagues defend their original article by demonstrating that even if the
limitations are accounted for, the amount of treatment clients receive and the level of
improvement in naturalistic settings are still less than what is observed in clinical trials research.
demonstrate the issues that arise when comparing naturalistic clinical practice to clinical research
trials.
Interested in the possibility that the reported variability in outcomes across dose-effect studies could be due to differences in service sites and the usage of trainee clinicians, Callahan and Hynan (2005) tested the dose-effect model of psychotherapy outcome in an American Psychological Association-approved doctoral training program in clinical psychology. Sixty-one clients receiving psychotherapy services from trainee clinicians participated in the study. The results found that 8% of clients were classified as successful outcome within 8 sessions, 31% were considered successful within 26 sessions, and 38% met criteria for successful outcome by 52 sessions. These findings indicate a lagging response curve in comparison to the results of Howard et al. (1986). These results suggest that the dose-effect model of psychotherapy may not be applicable to training clinic settings, thus demonstrating the need for further research on the possible relationships among client outcome, therapist training, and service site. These findings, along with the conclusions from Hansen et al. (2002), Gray (2003), and Hansen et al. (2003), show that further research is needed to understand how research findings generalize to clinical practice.

Shape of the Dose-Effect Curve

To present a more refined focus of the dose-effect model, Barkham and colleagues (1996) expanded on the work of Howard et al. (1986) and Kopta et al. (1994) by studying dose-effect relations within a randomized controlled trial of two time-limited treatments for depression. The researchers randomly assigned 212 depressed clients to receive either 8 or 16 sessions of time-limited psychotherapy in order to address 2 questions: 1) is the dose-effect curve for symptoms negatively accelerated? and 2) is there a differential response rate for acute, chronic, and characterological/interpersonal symptoms of depression? Results found that depressive symptoms have differential response rates, and the study offered mixed conclusions on whether
the dose-effect curve is negatively accelerated. Session-by-session plots of improvement in particular symptoms tended to look more linear, but when dosage was experimentally manipulated and results were compared across clients, the dose-effect curve appeared to be negatively accelerated. While many researchers interpret the negatively accelerating curve as the typical pattern of change in psychotherapy, this study introduced another possibility, the good enough level (GEL) model. The GEL model predicts that problems improve at a linear rate across sessions until a “good enough” level is reached at which point the client, in conjunction with their therapist, will decide to discontinue therapy or focus their therapeutic efforts on other problems.

Barkham and colleagues (2006) extended the research of Barkham et al. (1996) by applying the GEL model to examine how clients who attend different numbers of sessions change at different rates. Participants included 1,868 clients who attended 1 to 12 sessions of psychotherapy with planned endings. The percentage of clients receiving reliably and clinically significant improvement (RCSI) did not increase with the number of sessions attended. These results provide support for the GEL model’s idea that clients end treatment once they have achieved a sufficient level of improvement; therefore, dose is an indication of a client’s individual response time to therapy rather than a predictor of treatment outcome.

Intrigued by Barkham et al.’s (2006) findings that supported the GEL model, Baldwin and colleagues (2009) tested the competing predictions of the dose-effect model and the GEL model by examining the relationship between rate of change and total dose in 4,676 clients receiving individual psychotherapy. The results indicated that rate of change was related to total dose of treatment, providing support for the GEL model. Small doses were related to relatively fast rates of change, while large doses were related to slow rates of change. The findings from
Barkham et al. (1996), Barkham et al. (2006), and Baldwin et al. (2009) contradict the idea that the dose-effect curve is negatively accelerating. Evidence for the GEL model suggests that there are large individual differences in how quickly a client might respond to treatment and highlights the need for individualized rather than standardized treatment plans.

Howard et al.’s (1986) Contributions to Psychotherapy Research

Kopta (2003) noted the significant contributions Howard and his team made to psychotherapy research with their seminal study in 1986, along with their work that followed. These contributions included 1) pioneering the first study to examine how much treatment is enough, 2) establishing number of sessions or dose as the common treatment unit of psychotherapy, 3) providing the first dosage standard for determining treatment groups, 4) initiating a wave of dose-effect research, and 5) presenting the first methodology that assesses the efficiency of psychotherapy.

In short, dose-effect research has used different methodologies, criteria for evaluating improvement, and population samples since Howard and colleagues’ original study. However, as shown in Table 1, there appears to be a general agreement among several dose-effect studies that a minimum of 8-10 sessions, but more commonly 13-18 sessions, is necessary to achieve a 50% client improvement rate. Although much work remains, it is clear that the seminal research contributions of Howard and his colleagues spawned a wave of effectiveness research that has helped psychotherapy gain appreciation as an empirically supported health care profession, like medicine. These findings hold promise for psychotherapy to gain further public acceptance, research funding, and service reimbursement.
Table 1

Number of Sessions Needed to Achieve a 50% Client Improvement Rate

<table>
<thead>
<tr>
<th>Reference</th>
<th>Number of Sessions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard et al. (1986)</td>
<td>8</td>
<td>Did not use clinical significance criteria, only pre-post assessments</td>
</tr>
<tr>
<td>McNeilly and Howard (1991)</td>
<td>8, 68</td>
<td>Eight sessions for 50% response rate in psychotherapy clients, 68 sessions for 50% rate response in untreated sample</td>
</tr>
<tr>
<td>Kopta et al. (1994)</td>
<td>5, 14, 104</td>
<td>Sessions numbers refer to 50% response rate in acute, chronic, and characterological symptoms, respectively, found lower dose-effect relationship than Howard et al. (1986)</td>
</tr>
<tr>
<td>Maling et al. (1995)</td>
<td>10, 38</td>
<td>Session numbers refer to 50% response rate in interpersonal problems with control and social detachment, respectively</td>
</tr>
<tr>
<td>Barkham et al. (1996)</td>
<td>8, 16+</td>
<td>Eight sessions for 50% symptom improvement, 16 session for 40% interpersonal problem improvement</td>
</tr>
<tr>
<td>Kadera et al. (1996)</td>
<td>16</td>
<td>Used clinical significance criteria and session-by-session assessments, found lower dose-effect relationship than Howard et al. (1986)</td>
</tr>
<tr>
<td>Anderson &amp; Lambert (2001)</td>
<td>13</td>
<td>Used survival analysis on client data collected from each session</td>
</tr>
<tr>
<td>Hansen et al. (2002)</td>
<td>13-18</td>
<td>Session numbers based on dose-response literature review</td>
</tr>
<tr>
<td>Callahan &amp; Hynan (2005)</td>
<td>52+</td>
<td>52 sessions for 38% response rate in training clinic setting</td>
</tr>
<tr>
<td>Baldwin et al. (2009)</td>
<td>10</td>
<td>Suggested no relationship between dose and clinically significant improvement after session 8</td>
</tr>
</tbody>
</table>

Note. Barkham et al. (2006) is not included in the above summary since the percentage of clients improving did not increase with the number of sessions.
Mindfulness in Psychotherapy Research

Over the last two decades mindfulness practice has gained a considerable amount of attention in the field of psychotherapy research. Mindfulness can be described as the tendency to be attentive to and aware of what is happening in the present moment without judgment. While a significant amount of research has demonstrated the positive effects of mindfulness-based client interventions, only recently have researchers started investigating how therapist mindfulness might affect the therapeutic process and treatment outcome. This research has important implications for improving the mental health of clients.

Effects of Mindfulness on Psychotherapy Outcomes

Stanley and colleagues (2006) performed the first contemporary study to examine the relationship between therapist mindfulness and client outcome in a clinic utilizing manual-based therapies. Participants included 23 clinical trainees and 144 clients. Mindfulness was assessed by the Mindful Attention Awareness Scale (MAAS). Unexpectedly, results found that higher levels of therapist mindfulness were associated with worse client outcomes. These results could possibly be attributed to the study using self-reports of trait mindfulness as a predictor of outcome. Since there are potential discrepancies between self-reports of mindfulness and true levels of mindfulness, mindfulness training or assessing how often therapists engage in mindfulness practice may be a better predictor of client outcome.

Grepmair and colleagues (2007) addressed some of the limitations from the Stanley (2006) study by investigating whether promoting mindfulness among trainee therapists would influence the treatment outcomes of clients. Eighteen therapists were randomly assigned to one of two groups: 1) those practicing Zen meditation or 2) the control group, which did not perform meditation. To examine client outcomes, 124 clients were randomly assigned to the trainee
therapists. In comparison to the control group, clients treated by the trainee therapists who participated in Zen meditation scored significantly higher on their subjective assessment of individual therapy on clarification and problem-solving perspectives, reported significantly higher evaluations for the entire therapeutic outcome, and also made better assessments of their subjective progress in overcoming their difficulties and symptoms. These results offer support for the use of mindfulness as a technique to improve treatment outcomes in clients.

A few studies have examined the potential relationship between self-awareness and therapeutic outcomes. In Williams’ (2008) review of the psychotherapy literature on therapist self-awareness, the researcher presents contradictory findings from the studies. While some studies have found therapist self-awareness to be associated with anxiety or poor performance, other studies have found a relationship between self-awareness and positive in-session processes. In addition, Williams’ notes that research on the management of distracting self-awareness offers no consensus on the effectiveness of particular management techniques. Given the complexity of this topic, Williams’ review of the literature suggests exploring additional concepts in relation to self-awareness, such as mindfulness and attentional flexibility. Williams recommends studying the relationship between mindfulness and therapist self-focused attention to examine whether mindfulness practice could potentially moderate the hindering effects of self-focus and improve client outcomes.

As discussed in Davis and Hayes’ (2011) review of empirically supported mindfulness benefits, it is unclear how therapists’ meditation practices affect client outcomes due to contradictory findings from the existing research. If future research shows a positive relationship between therapists’ mindfulness and client outcomes, psychotherapy training and supervision could utilize mindfulness training as a means to improve the therapeutic process.
Suggestions to Improve Clinical Training with Mindfulness

Several researchers have attempted to address the shortcomings of traditional psychotherapy training by suggesting new techniques and methods, such as mindfulness, to incorporate into training programs. For example, Moore (2008) examined whether a short course of brief mindfulness exercises could promote the development of personal understanding of mindfulness. The study analyzed the qualitative and quantitative evaluations of 10 clinical trainees who had completed a 14 session course of structured mindfulness practices lasting 10 minutes each session. Results showed that the course increased participants’ ability to be mindful and their ability to be more aware of internal states. These findings suggest that a course utilizing frequent, brief exercises could introduce trainee psychologists to mindfulness and facilitate the development of mindfulness skills. A short mindfulness course could be beneficial in clinical training programs where many students have time constraints.

Some research has indicated that traditional psychotherapy training practices are unsuccessful in improving the long-term effectiveness of psychotherapists (Fauth, Gates, Vinca, Boles, & Hayes, 2007). To address this issue, Fauth and colleagues (2007) provide a number of suggestions to improve psychotherapy training including 1) focusing on a few "big ideas", such as therapeutic responsiveness; 2) emphasizing the development of meta-cognitive skills in psychotherapists, such as pattern recognition and mindfulness, via experiential practice; and 3) considering how the organizational/treatment context may influence the effectiveness of psychotherapy training. The researchers propose the use of mindfulness in order to limit therapists’ negative reactions during sessions, thus strengthening the therapeutic process. In addition, Fauth and colleagues propose that future psychotherapy training researchers should
examine a broader range of intermediate outcomes in their studies and investigate the retention rates of skill acquisition beyond the training period.

Drawing from existing research and Buddhist theories, Bruce and colleagues (2010) also suggest the use of mindfulness as a potential method to improve therapist training. The researchers explain that while research has shown a relationship between effective psychotherapists and their ability to relate to clients, few studies have identified effective means for training psychotherapists in this ability. To address the lack of research on this topic, Bruce and colleagues (2010) propose that mindfulness is a means of self-attunement that increases psychotherapists’ ability to relate to their clients. This interpersonal attunement has potential to help clients gain greater self-attunement, which could result in improved client outcomes. The Bruce et al. findings introduce a possible relationship between mindfulness and self-attunement in psychotherapists, which could have important implications for improving the therapeutic relationship.

Mindfulness Training Research

Given the potential benefits of therapist mindfulness demonstrated in the literature, a number of recent studies have started to examine the effects of mindfulness training on trainee therapists. To examine the effects of mindfulness-based stress reduction (MBSR) on the mental health of counseling trainees, Shapiro, Brown, and Biegel (2007) had 54 trainees complete either a MBSR program or a control group course. The findings showed that the MBSR program was associated with decreases in stress, negative affect, rumination, state and trait anxiety, and significant increases in positive affect and self-compassion. In addition, participation in the MBSR program was related to increases in mindfulness, and those increases were related to several of the beneficial effects of MBSR on mental health. These results suggest that
mindfulness is a tool that can be improved through proper training and has potential benefits for the mental well-being of therapist trainees.

Using qualitative methods, Schure and colleagues (2008) examined counseling trainees’ perceptions of the influence of mindfulness practices (i.e. hatha yoga, meditation, and qigong) on their lives and their work with clients. Data was collected over the course of 4 years from 33 trainees who completed a 15-week mindfulness-based stress reduction course. The counseling trainees reported positive physical, emotional, mental, spiritual, and interpersonal changes, as well as positive effects on their counseling skills and therapeutic relationship. In addition, most trainees indicated plans to integrate mindfulness practices into their counseling work. They also expressed different preferences for and experiences with the 3 mindfulness practices, suggesting that different mindfulness practices may achieve different benefits. The study's use of qualitative methods provides an open-ended examination of how mindfulness practices can benefit counseling trainees.

In another study using qualitative analysis, McCollum and Gehart (2010) examined counseling trainees experience with mindfulness meditation training as a way to help them develop therapeutic presence. Thematic analysis of 13 students’ journals revealed a number of themes, including the ability to be present during sessions, positive effects of meditation (i.e. managing inner chatter), balancing being and doing modes of therapy, and the development of acceptance and compassion for themselves and for their clients. In addition, students described specific instances of how mindfulness positively impacted their day-to-day clinical practice.

A majority of the psychotherapy research on mindfulness training has used MBSR-based programs or Zen meditation, which do not focus on therapy-related skills. To address this limitation, Aggs and Bambling (2010) examined whether an 8-week, clinically focused,
mindfulness therapy (MT) program would affect the training outcomes of 47 mental health professionals. Participants demonstrated knowledge acquisition on all measures, including increased levels of in-session mindfulness, increased ability to intentionally invoke mindful states of consciousness, and lower participant ratings of stress and tension after completing the program. In contrast, no differences were observed post-training in regards to attention-regulation skills suggesting that certain aspects of mindfulness may require different amounts of training. These findings offer support for the use of a standardized and clinically focused mindfulness training programs to aid therapists in their clinical practice.

Given the positive findings from mindfulness training research, Davis and Hayes (2011) provided psychotherapists with a review of empirically-supported benefits of mindfulness in psychotherapy. The researchers categorize the benefits of mindfulness into three categories: affective benefits (i.e. emotion regulation), interpersonal benefits (relationship satisfaction), and intrapersonal benefits (decreases in psychological stress). In addition, research on therapists who meditate and client outcomes of therapists and trainee therapists who meditate are discussed. Studies suggest that therapists and trainees who meditate have increased ability to be empathetic and compassionate, decreased stress and anxiety, and improved counseling skills (Davis & Hayes, 2011).

While a significant amount of research on mindfulness training has shown mindfulness training to be a positive influence, a few studies have demonstrated negative effects. O’Driscoll’s review (2009) of existing research presents a number of benefits mindfulness has on therapists’ clinical work including increased empathy and warmth, decreased experiential avoidance, and increased ability to direct attention. However, O’Driscoll (2009) also discusses studies that have demonstrated a relationship between therapist mindfulness and negative effects, such as poor
client outcomes and painful experiences when focusing on negative emotions. To better understand the potential benefits of mindfulness, future research must address the limitations in previous studies by using larger samples sizes, using empirically-supported methodology, and conducting more nuanced analyses of the role of mindfulness in therapeutic outcomes.

Although a number of studies have demonstrated the positive effects of mindfulness training, it is important for future research to consider whether mindfulness training research can generalize across levels of experience (i.e. trainees or professionals) and disciplines (i.e. clinical, counseling, or social work). Furthermore, there may be issues when attempting to generalize mindfulness training results across generations of therapists. To examine the potential differences in the characteristics of second-wave (e.g. Beckian cognitive therapy) and third-wave (e.g. acceptance and commitment therapy) cognitive behavioral therapists, Brown and colleagues (2011) analyzed the results of an Internet-based survey completed by 55 second-wave therapists and 33 third-wave therapists. The survey included measures assessing their attitudes and use of different psychotherapy techniques. Results did not suggest major differences in the backgrounds and attitudes of second- and third-wave cognitive behavioral therapists, but differences were identified regarding the techniques the therapists endorsed using. As expected, third-wave therapists reported using more mindfulness/acceptance techniques than second-wave therapists. In addition, third-wave therapists endorsed using more exposure techniques, whereas second-wave therapists reported greater use of cognitive restructuring and relaxing techniques. Given the differences in techniques used by second- and third- wave therapists, future research should investigate potential differences in client outcomes and how the effects of mindfulness training may differ between groups.
Methodological Issues and Directions for Future Research

Since the research on therapist mindfulness is still in the nascent stages, there are a number of critical methodological issues that need to be addressed in future studies, such as the quantification of the construct of mindfulness. Grossman (2008) discusses a number of issues associated with using self-report assessments of mindfulness including the following: 1) difficulties and differences in conceptualizing mindfulness; 2) potential biases of inventory developers due to their modest levels of experience with mindfulness practices or Buddhist theory; 3) potential differences in semantic understanding of scale items among respondents as a result of their differing exposure to mindfulness; 4) possible discrepancies between self-reports of mindfulness and actual levels of mindfulness; and 5) validity concerns of mindfulness inventories. Grossman's presentation of these issues underscores the need for further research to develop alternative techniques for quantifying the construct of mindfulness.

To address some of the limitations from past research, Garland and Gaylord (2009) discuss four domains for guiding future research in this area: 1) using performance based, cognitive behavioral measures as opposed to self reports of mindfulness; 2) evaluating Buddhist claims using scientific methods, 3) utilizing neuroimaging technology to study the psychobiological effects of mindfulness; and 4) measuring changes in gene expression resulting from mindfulness. Using these empirically-supported research methodologies may help researchers quantify mindfulness and gain a further understanding of the benefits of mindfulness. Thus, future research should focus on addressing the limitations presented above and developing improved methodologies. Given the potential benefits for clients, further research is imperative to understand the efficacy of mindfulness training for therapists.
The Present Study

As shown in Table 2, a significant amount of research offers promise for the use of mindfulness as a technique to improve the therapeutic process as well as client outcomes.

Table 2

*Summary of Psychotherapy Research Findings on Therapist Mindfulness*

<table>
<thead>
<tr>
<th>References</th>
<th>Methodology</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanley et al. (2006)</td>
<td>Self-report measure (MAAS)</td>
<td>Unexpectedly found that higher levels of therapist mindfulness were associated with worse client outcomes</td>
</tr>
<tr>
<td>Fauth et al. (2007)</td>
<td>Reviewed literature on psychotherapy training</td>
<td>Suggested including mindfulness in the training of psychotherapists</td>
</tr>
<tr>
<td>Grepmaier et al. (2007)</td>
<td>Promoted mindfulness through Zen meditation</td>
<td>Therapists who participated in Zen meditation were associated with better client outcomes compared to the control group</td>
</tr>
<tr>
<td>Shapiro et al. (2007)</td>
<td>MBSR program</td>
<td>Therapist benefits and increased levels of mindfulness were associated with completing the MBSR program</td>
</tr>
<tr>
<td>Moore (2008)</td>
<td>Brief, 14 session course of mindfulness exercises</td>
<td>The brief training in mindfulness increased therapists’ ability to be mindful and to be more aware of internal states</td>
</tr>
<tr>
<td>Schure et al. (2008)</td>
<td>Promoted mindfulness through 3 mindfulness practices (hatha yoga, meditation, and qigong)</td>
<td>Therapists reported positive physical, emotional, mental, spiritual, and interpersonal changes, as well as positive effects on their counseling skills</td>
</tr>
<tr>
<td>Williams (2008)</td>
<td>Reviewed psychotherapy literature on self-awareness</td>
<td>Demonstrated contradictory findings on the effects of therapist self-awareness, suggested future research to examine the relationship between mindfulness and therapist self-focused attention</td>
</tr>
<tr>
<td>Garland &amp; Gaylord (2009)</td>
<td>Reviewed mindfulness literature</td>
<td>Presented 4 domains for guiding future research on mindfulness using leading-edge empirical research methodologies</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>References</th>
<th>Methodology</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>O’Driscoll (2009)</td>
<td>Reviewed literature on the benefits of mindfulness on the therapist and therapeutic process</td>
<td>Reported contradictory findings on the relationship between therapist mindfulness and potential benefits, discusses a number of methodological issues</td>
</tr>
<tr>
<td>Aggs &amp; Bambling (2010)</td>
<td>Clinically-focused mindfulness therapy program</td>
<td>Found therapist knowledge acquisition on all measures including increased in-session mindfulness and ability to intentionally invoke mindful states of consciousness</td>
</tr>
<tr>
<td>Bruce et al. (2010)</td>
<td>Reviewed existing mindfulness research and Buddhist theories</td>
<td>Suggested the use of mindfulness in psychotherapy training as a means of self-attunement that could increase therapists’ ability to relate to clients</td>
</tr>
<tr>
<td>McCollum &amp; Gehart (2010)</td>
<td>Mindfulness meditation training</td>
<td>Thematic analysis revealed positive effects of meditation on therapists’ clinical work</td>
</tr>
<tr>
<td>Brown et al. (2011)</td>
<td>Internet survey assessing techniques therapists used</td>
<td>Found that third-wave therapists endorsed using mindfulness/acceptance techniques more than second-wave therapists</td>
</tr>
<tr>
<td>Davis &amp; Hayes (2011)</td>
<td>Reviewed literature on the empirically-supported benefits of mindfulness in psychotherapy</td>
<td>Categorized mindfulness benefits into 3 categories (affective, interpersonal, and intrapersonal benefits); suggests therapists who meditate have improved counseling skills and decreased stress</td>
</tr>
</tbody>
</table>
Therapists who practice mindfulness are thought to be able to better show empathy and compassion for their clients, have less stress and anxiety about their clinical work, are better able to be present with their clients during sessions, and show overall improved therapy outcomes. However, very few studies have empirically investigated whether therapist mindfulness actually leads to these positive results. Those studies that have been conducted have only been correlational, comparing general levels of mindfulness use by therapists with various therapy outcomes (e.g., Stanley et al., 2006). In the one controlled study of therapist mindfulness that was identified, Grepmair et al. (2007) randomly assigned trainee therapists to practice Zen meditation for nine weeks or to a control condition. Compared to the control group, clients who met with the therapists who practiced meditation showed more positive treatment outcomes.

One may also wonder if therapists’ use of a mindfulness exercise right before meeting with a client could also have a positive impact on the following session. The purpose of the proposed study was to test whether engaging in a mindfulness centering exercise 5-10 minutes before a session could also have a positive impact on therapy, in particular on the therapists’ ability to remain present in session and on session outcomes.

In light of the conflicting findings in the small literature currently available, the following research questions were examined:

Research Question 1: At baseline, does therapists’ general mindfulness relate to their therapeutic presence in session?
Research Question 2: Do therapists improve in state and trait mindfulness after five sessions of training in the practice of mindfulness?
Research Question 3: Does the centering exercise (moderated by state mindfulness) lead to increased therapeutic presence and better session outcomes as rated by clients?
Participants

Participants included 23 trainee therapists who were graduate students enrolled in one of three American Psychological Association accredited, scientist-practitioner doctoral programs in psychology [clinical psychology, clinical health psychology and behavioral medicine (accredited as clinical), and counseling psychology] at the University of North Texas. All of the participants were completing their in-house training practicum at the UNT training clinic.

Trainees were primarily female \( (n = 16; 69.6\%) \) and Caucasian \( (n = 16 69.6\%); \) Hispanic \( n = 3 \); Asian-American \( n = 1 \); Bi/multi-racial or other \( n = 3 \). The average age was 26.09 \( (SD = 2.54) \), ranging from 22 to 34 years old. They reported an average of 2.87 \( (SD = 0.69) \) years of training in their respective programs and an average of 2.46 \( (SD = 1.57) \) years of clinical experience. Forty-one percent of trainees endorsed a cognitive and/or behavioral theoretical orientation, 22\% were undecided, and the remaining espoused an integrative (9\%) or other (27\%) orientation. On a 7-point Likert-type scale ranging from 1 \( (none \ whatsoever) \) to 7 \( (deep \ and \ rich \ theoretical \ and \ practical \ understanding) \) the trainee clinicians on average rated their knowledge of mindfulness as \( M = 4.17 \) \( (SD = 1.23) \), and on a scale ranging from 1 \( (none \ whatsoever) \) to 7 \( (years \ of \ experience \ and \ daily \ practice) \) the trainee clinicians on average rated their pre-training experience with mindfulness as \( M = 3.04 \) \( (SD = 1.49) \).

The clinic serves both UNT students and the Dallas/Fort-Worth metroplex community and operates on a low-cost sliding scale fee system, resulting in a diverse clientele who present with a wide variety of clinical concerns and diagnosis. The most common diagnoses are mood and anxiety disorders. Consistent with IRB approval, the clients providing data about their
trainee clinicians were not informed of the purpose of the study, due to possible contamination of findings. Clients were asked by their trainee clinician to complete two brief measures at the end of each session during the weeks of assessment. There were 79 clients who provided session data at some point during the study. All participants in this study, as well as the resultant data, were treated in accordance with the American Psychological Association’s (APA) code of ethics (APA, 2002) and approval was obtained from both the Institutional Review Board (IRB; see Appendix A) and the Psychology Clinic Executive Committee (PCEC) prior to collecting any data.

Measures

In addition to therapist demographics (age, gender, ethnicity), the following information was obtained: years of training, years of clinical experience, degree program, theoretical orientation, knowledge about mindfulness, and experience with mindfulness practice (see Appendix B for a copy of the form on which these variables were recorded). Additionally, therapists were asked to record a log of their mindfulness practice (see Appendix C).

Toronto Mindfulness Scale. The Trait Toronto Mindfulness Scale (TMS) (Davis, Lau, & Cairns, 2009; Lau et al., 2006) is a 13 item self-report questionnaire to assess state mindfulness. The measure includes two subscales, derived via factor analysis: Curiosity and Decentering. Internal consistency reliability for the Trait TMS has been reported to be .88 for Curiosity and .84 for Decentering (Lau et al., 2006), which was comparable to the reliability found for the Trait TMS (.91 and .85; Davis, Lau, & Cairns, 2009). Confirmatory factor analysis provided additional support for a 2-factor model and both scales have shown good convergent and discriminant validity (Lau et al., 2006). With our sample the internal consistency for the total scores was .97 (Curiosity) and .87 (Decentering) for the two subscales.
Five Facet Mindfulness Questionnaire. The Five Facet Mindfulness Questionnaire (FFMQ) (Baer, 2006), consisting of 39 items rated on a 5-point Likert-type scale, is used to assess the 5 facets of trait mindfulness (observing, describing, acting with awareness, non-judging of inner experience and non-reactivity to inner experience). The FFMQ has been found to have good internal consistency and significant relationships in the predicted directions with a number of constructs related to mindfulness. Results have shown that most mindfulness facets are related to meditation experience, further demonstrating the construct validity of the measure (Baer et al., 2008). No significant differences have been found between males and females for any of the mindfulness facets. Some findings have demonstrated differential item functioning (DIF) between meditating and nonmeditating samples when responding to positively and negatively worded items on the FFMQ (Van Dam, Earlywine, & Danoff-Burg, 2009), which may be problematic regarding the construct validity of the measure. However, when using meditating and nonmeditating samples matched on demographic variables, minimal evidence was found for differential item functioning on the FFMQ (Baer, Samuel, Lykins, 2011). In this study we found an internal consistency of .92 for the total measure and a range of .72 (observe) to .91 (describe) for the five facets.

Therapist Presence Inventory (both therapist and client forms). The Therapist Presence Inventory (Geller, Greenberg, & Watson, 2010) consists of two versions, Therapeutic Presence Inventory-therapist (TPI-T) and Therapeutic Presence Inventory-client (TPI-C), which measure in-session therapeutic presence. The TPI-T is a self-report questionnaire that consists of 21 items rated on a 7-point Likert-type scale, and the TPI-C is a self-report questionnaire that consists of 3 items also rated on a 7-point Likert-type scale. The TPI-T’s reliability was found to be .94 across the sample and ranging from .92-.95 across therapy types. On the TPI-C, the reliability was
found to be .82 across the sample and ranging from .79-.84 across therapy types. Both measures were found to have good construct validity. The TPI-C demonstrated good predictive validity for therapeutic alliance and session outcome; however, the TPI-T had low predictive validity. With our sample the internal consistency for the TPI-T was .88 and .92 for the TPI-C.

Session Rating Scale. The Session Rating Scale (SRS) (Campbell & Hemsley, 2009) is a 4-item visual analogue instrument that is used to measure therapeutic alliance. The measure yields four separate scores between 0-100 using a millimeter for scale measurement. The SRS has been found to have internal consistencies of .93, strong inter-item correlations, and consistently moderate concurrent validity (.37-.63 correlations between the SRS items and the WAI subscales). With our sample an internal consistency of .83 was found for the four items.

Procedures

During one of the early weeks of the fall 2011 semester, study personnel contacted graduate students who were completing their practicum in the clinic. The study was described to possible clinician participants in detail, including the potential risks and benefits, and written informed consent was obtained. Those who did not want to participate in the study were still eligible to attend the mindfulness training; however, only participants actually chose to attend the trainings.

Clients who were seen by one of the participating clinicians could also be seen as participants in this study. For participating clients, IRB approval for a waiver of some of the portions of informed consent was obtained. Given that the mindfulness training and the mindfulness exercise is part of the clinicians’ experiences and engagement in such activities would depend solely on the decisions of the clinicians, this portion of the study was not advertised to the clients. Additionally, informing the purpose of the study to the clients would
have potentially biased their session ratings. Instead, at the end of each session during the weeks of assessment, the clinician who just met with the client asked if the client was willing to complete a measure with questions about today’s session. A signature of consent for clients was not obtained, but instead clients were told that completing the measure would signify consent. A script was included at the top of the client measure to provide standard instructions.

Both clients and therapists completed a measure of therapist presence prior to the therapist being trained in the practice of mindfulness. Therapists also completed state and trait mindfulness measures and provided information regarding their typical pre-session behaviors prior to being trained in the practice of mindfulness. Presence and effectiveness data from 50 sessions were obtained during the baseline period. Therapists were then asked to participate in five brief trainings on mindfulness, during which they completed a centering exercise and the state mindfulness measure. Therapists attended an average of 4.74 training sessions. Therapists were also asked to complete the centering exercises at home and log their practice. After the five trainings, therapist trait mindfulness was assessed again.

Next, for two weeks, sessions were randomized so that the therapist was assigned to either complete the centering exercise or another task right (e.g., check email) before each session. Clients completed the measure of therapist presence and session impact after each of these sessions. Therapists completed the measures of therapist presence and state mindfulness after each session during their two weeks of randomization. Data from 78 sessions were collected. However, there were 6 sessions in which therapists did not complete the centering exercise (due to time constraints) when they were assigned to do so. Those sessions were excluded from the analyses.

Therapists were then encouraged to complete the centering exercise ad libitum in
subsequent weeks and record those practice exercises in a log. Five weeks later their log was collected for analyses. At that time, it was intended for the therapists to attend a final meeting to complete the centering exercise and complete follow-up measures of trait and state mindfulness. However, given the therapists’ limited availability, it was not possible to schedule a final meeting time with therapist participants. Thus, the state and trait mindfulness measures were not obtained during the follow-up period. However, it was possible to secure participants’ compliance in completing client measures for session impact and presence and therapist measures for presence and state mindfulness (a copy of the training manual can be obtained by contacting the author). Unfortunately, due to the clinic’s closing between semesters, most of the therapists had not begun scheduling new appointments with their clients at the time the follow-up data was collected. Thus, data from only 14 sessions were obtained during the follow-up period.

All consent forms and measures for the study were collected through paper pencil instruments. The paper measures were removed from the clinic dropout boxes daily by key personnel. Data was then transferred from the paper forms onto an SPSS file. The data on the SPSS file does not contain any names and will be maintained in an anonymous form for a minimum of three years on the PI’s office/lab computer and/or storage device. Only the faculty member PI or key personnel have access to the data.

For purposes of confidentiality, participating clinicians were asked to choose an identifier known only to them for the study at the start of the study. They were told to remember this identifier and to write it on the top of all of their forms instead of their names. Client numbers instead of names were also used on all forms. No names were linked to the completed measures at any time. Additionally, clinicians and clients were able to turn their forms directly in a survey box in the clinic to further maintain confidentiality.
Signed informed consent forms were stored in a locked file cabinet in the faculty member PI’s lab offices. These consent forms will be maintained in a locked location for three years and then will be shredded. They may be shredded earlier if they are first scanned for electronic storage.
CHAPTER IV
RESULTS

I was first interested in examining whether therapists’ general mindfulness related to their therapeutic presence in session. Baseline measurements of therapeutic presence rated by the therapists were obtained for 20 of the 23 trainee therapists (two trainee therapists did not have clients during the week of baseline data collection due to appointment cancellations and one therapist failed to complete the measure after their session). Ratings across sessions were aggregated to compute an average therapeutic presence score for each therapist. A simple linear regression demonstrated that therapists’ general mindfulness at baseline accounted for a significant proportion of variance in therapeutic presence as rated by therapists, $R^2 = .26, F(1, 19) = 6.30, p = .022$. Therapists’ general mindfulness at baseline was a significant predictor in the model, $B = .50, t(18) = 2.51, p = .022$. Baseline measurements of therapeutic presence rated by clients were obtained for 21 of the trainee therapists. A regression analysis indicated therapists’ general mindfulness at baseline did not explain a significant proportion of variance in therapeutic presence as rated by clients, $R^2 = .03, F(1, 19) = .54, p = .47$. Therapists’ general mindfulness at baseline was not a significant predictor in the model, $B = -.02, t(19) = -.74, p = .470$.

Next, I investigated whether or not our brief 5-week mindfulness training led to improvements in the use of mindfulness (trait and state) by our trainee clinicians. The average pre-training score on the Five Facet Mindfulness Questionnaire was $M = 136.13$ ($SD = 15.74$). In comparison, the average post-training score on the FFMQ for our clinicians was $M = 134.61$ ($SD = 16.48$). A paired samples t-test found this difference, $M_{diff} = 1.52$ ($SD = 11.16$), to not be significant, $t(22) = .65, p = .520, d = 0.09$. This result indicates that our trainee clinicians, on
average, did not improve significantly in trait mindfulness through our brief mindfulness training program.

Scores on the TMS after the first training session mindfulness practice were also compared to scores on the TMS after the last training session mindfulness practice. The average pre-training score on the TMS was $M = 30.22$ (SD = 8.00) and the average post-training score was $M = 28.00$ (SD = 11.12). A paired samples t-test indicated that the difference between the average pre-training and post-training scores, $M_{\text{diff}} = 2.22$ (SD = 10.73), was not significant, $t(22) = 0.99$, $p = .332$, $d = .23$. This result indicates our trainee clinicians, on average, did not improve significantly in state mindfulness during mindfulness practice exercises through our brief mindfulness training program.

Although our brief five-week mindfulness training program did not lead to self-rated improvements in state and trait mindfulness for our training clinicians, I was still interested in examining whether practicing the centering exercise before a session led to increased therapeutic presence and better session outcome as rated by the clients. During the randomized portion of the study, data was obtained from 22 of the 23 therapists (one therapist dropped out of the study prior to the post-training phase of the study due to other time commitments).

A hierarchical regression was conducted to test the main effects of the centering exercise and state mindfulness, as well as the effect of the interaction between the centering exercise and levels of state mindfulness on therapeutic presence scores as rated by clients. In Step 1, the centering exercise and state mindfulness were entered into the model as predictors; they did not explain a significant amount of variance in therapeutic presence ratings by clients, $R^2 = .04$, $F(2, 45) = 1.93$, $p = .158$. In Step 2, the interaction between the centering exercise and levels of state mindfulness was entered into the model. Results revealed that the interaction was not
significantly related to therapeutic presence ratings by clients, $\Delta R^2 = .03$, $F(3, 44) = 1.72, p = .177$. Thus, state mindfulness did not moderate the relationship between performing the centering exercise and therapeutic presence ratings by clients. In the final model, the centering exercise was not a significant predictor of therapeutic presence ratings by clients, $B = .24, t(46) = .46, p = .646$. The results also indicated that state mindfulness was not a significant predictor of therapeutic presence ratings by clients, $B = .03, t(46) = .2, p = .416$.

A hierarchical regression was conducted to test the main effects of the centering exercise and state mindfulness on clients’ session outcome ratings. In Step 1, the centering exercise and state mindfulness were entered into the model as predictors. The results indicated that centering exercise and state mindfulness accounted for a significant amount of variance in clients’ session outcome ratings, $R^2 = .15, F(2, 45) = 4.10, p = .023$. In Step 2, the interaction between the centering exercise and state mindfulness was entered into the model. Results revealed that the interaction was not significantly related to clients’ session outcome ratings, $\Delta R^2 = .002, F(3, 44) = 2.71, p = .056$. Therefore, state mindfulness did not moderate the relationship between performing the centering exercise and clients’ session outcome ratings. In the final model, the centering exercise was not a significant predictor of clients’ session outcome ratings, $B = 21.03, t(46) = 1.71, p = .095$. However, state mindfulness was a significant predictor of clients’ session outcome ratings, $B = 1.46, t(46) = 2.02, p = .05$. 
CHAPTER V
DISCUSSION

The use of mindfulness as an intervention for clients in psychotherapy has become very popular as research has demonstrated its effectiveness in treating clients with a variety of clinical conditions. In recent years some have suggested that mindfulness practice may also be useful for therapists. While a significant amount of research illustrates the overall positive effects of therapists’ general use of mindfulness, very few studies have examined whether therapists’ mindfulness actually improves psychotherapy outcomes. Additionally, no studies have examined whether mindfulness immediately before a session impact session outcomes. To address this issue, the present study examined whether therapists’ completion of a centering exercise immediately before a session would impact clients’ ratings of therapeutic presence and session outcomes.

The current study found that therapists’ self-reported trait mindfulness at baseline were significantly related to therapist’s ratings of therapeutic presence during sessions. However, therapists’ trait mindfulness at baseline was not significantly related to clients’ ratings of therapeutic presence. When examining the effects of the brief mindfulness training, results demonstrated that therapists’ state and trait mindfulness did not significantly improve after completing the brief five week mindfulness training. Furthermore, the centering exercise did not significantly improve client ratings of therapeutic presence or session outcomes. A test of moderation revealed that state mindfulness did not significantly moderate the relationship between the centering exercise and client ratings. However, state mindfulness was significantly related to improvements in clients’ ratings of session outcomes after therapists had completed the brief mindfulness training.
Given that the data obtained from the sessions were not independent, hierarchical linear modeling might have allowed us to detect smaller and more nuanced effects in the study. However, due to the sample size available, HLM was not a viable option for this study. Instead, the data was aggregated to compute composite variables, and regression analyses were conducted. A future study using HLM analysis with a larger sample size should be conducted to examine the potential effects of mindfulness on psychotherapy outcomes.

Null findings for state and trait mindfulness levels may be attributable to the problems that arise when using self-report to measure mindfulness. Researchers have suggested that there may be noteworthy discrepancies between self-reports of mindfulness and true levels of mindfulness making it difficult to accurately assess an individual’s level of mindfulness (Grossman, 2008). It is also plausible that individuals become more aware of their lack of mindfulness through continued training and practice, thus decreasing their scores on self-report measures of mindfulness despite actual increases in their levels of mindfulness. It would be useful for future research to examine how much training in mindfulness is necessary to impact actual levels of state and trait mindfulness. Additionally, investigation of self-report measures of mindfulness is necessary (with special attention to possible ceiling effects) in order to understand whether state and trait mindfulness are actually affected through training and practice.

The results suggested that completing a centering exercise immediately before a session did not improve therapeutic presence or session outcome from the clients’ perspectives. Ceiling effects associated with clients’ ratings may have impacted the results. The average client rating for therapeutic presence was 19.62 out of 21, while the average client rating for session outcome was 365.86 out of 400. Although confidentiality was stressed to the therapists and clients, clients may have been hesitant to give low ratings to their therapists, particularly because the measures
were distributed to clients by their therapists. During the randomized portion of the study, therapists were asked to complete the centering exercise for 5 minutes. The duration of the exercise may not have been long enough to impact levels of mindfulness and therapeutic presence during the sessions. Future research should examine whether longer exercises (i.e. 15-20 minutes) could lead to improved therapeutic presence. Our results indicated that after therapists completed the trainings, state mindfulness was significantly related to improvements in clients’ ratings of session outcomes. This finding offers preliminary evidence that state mindfulness is an important factor in session effectiveness. The potential uses for mindfulness in psychotherapy should continue to be explored; however, future research is encouraged to first address the limitations of self-report measures of mindfulness.
APPENDIX A

IRB APPROVAL
Jennifer Callahan  
Department of Psychology  
University of North Texas  

Re: Human Subjects Application No. 11365

Dear Dr. Callahan:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), the UNT Institutional Review Board has reviewed your proposed project titled "Using Pre-Session Mindfulness to Improve Therapy Presence." The risks inherent in this research are minimal, and the potential benefits to the subject outweigh those risks. The submitted protocol is hereby approved for the use of human subjects in this study. Federal Policy 45 CFR 46.109(e) stipulates that IRB approval is for one year only, September 6, 2011 to September 5, 2012.

It is your responsibility according to U.S. Department of Health and Human Services regulations to submit annual and terminal progress reports to the IRB for this project. The IRB must also review this project prior to any modifications.

Please contact Sheila Bourns, Research Compliance Analyst, or Boyd Herndon, Director of Research Compliance, at extension 3940, if you wish to make changes or need additional information.

Sincerely,

Patricia L. Karninski, Ph.D.  
Associate Professor  
Department of Psychology  
Chair, Institutional Review Board

PK:sb
APPENDIX B

THERAPIST DEMOGRAPHIC FORM
Please choose an identifier that will be used to link your measures throughout the study. You will place this identifier at the top of every form that you and your clients complete so please choose one that you will remember.

Clinician ID: _______________________

Please provide us with some demographic information about yourself and your training.

Age: ____________________  Gender: ________________________________

Ethnicity: _________________________

Degree Program: __________ Year in Program: _________________________

Years of clinical experience: ______ Theoretical orientation: ___________________

Please answer the following by circling the appropriate number to best describe your experience

**Knowledge about mindfulness**

None whatsoever  
1  2  3  4  5  6  7  
Deep and rich theoretical and practical understanding

**Experience with mindfulness practice**

None whatsoever  
1  2  3  4  5  6  7  
Years of experience and daily practice
APPENDIX C

MINDFULNESS PRACTICE LOG
Please place an X in the box corresponding to the days that you completed the mindfulness exercise on your own. Also, for each day in which the practice was completed give yourself a rating from 0 (not at all present) to 10 (perfectly present) on how present you were during the practice and write that number in the corresponding box as well.

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


