

2009

# The conceptualization and integration of conscious breathing into clinical practice

Mia Rachel Gutfreund

Follow this and additional works at: <https://scholarworks.smith.edu/theses>

 Part of the [Social and Behavioral Sciences Commons](#)

---

## Recommended Citation

Gutfreund, Mia Rachel, "The conceptualization and integration of conscious breathing into clinical practice" (2009). *Theses, Dissertations, and Projects*. 1203.  
<https://scholarworks.smith.edu/theses/1203>

This Masters Thesis has been accepted for inclusion in Theses, Dissertations, and Projects by an authorized administrator of Smith ScholarWorks. For more information, please contact [scholarworks@smith.edu](mailto:scholarworks@smith.edu).

Mia R. Gutfreund  
The Conceptualization and  
Integration of Conscious  
Breathing in Clinical Practice

## ABSTRACT

The purpose of this study was to explore how clinicians integrate conscious breathing into their practice as psychotherapists. Sixteen therapists practicing in the San Francisco Area were interviewed for this qualitative study. Participants provided rich data in terms of how they conceptualize and utilize conscious breathing techniques, as well as how they think about the place of conscious breathing within traditional “talk” therapy settings. The findings augment existing research on the topic, and provide support for the notion that conscious breathing can be used as a therapeutic technique to advance such goals as mutual regulation, emotional attunement, a sense of “holding,” increased mind-body awareness, and mindfulness. The findings of this study also show that if therapists are willing to consider different paradigms of healing, they can expand their clinical repertoire in ways that are of use to a variety of clients with a range of presenting problems. In this paper, the relevant research is reviewed, the study methodology is described, and the findings are analyzed. The author also makes suggestions for clinical practice, as well as for future research.

THE CONCEPTUALIZATION AND INTEGRATION OF CONSCIOUS BREATHING  
IN CLINICAL PRACTICE

A project based upon independent investigation,  
submitted in partial fulfillment of the requirements  
for the degree of Master of Social Work

Mia R. Gutfreund  
Smith College School for Social Work  
Northampton, Massachusetts 01060

2009

## ACKNOWLEDGEMENTS

Thank you to all the participants who generously offered their time, and shared their thoughts and personal experiences on conscious breathing and psychotherapy.

Thank you also to my steadfast, supportive, amazing and knowledgeable Research Advisor, Elizabeth Kita, and to Professor Corbin for her research wisdom.

Big thanks to my extended family and friends, who cheered me on and believed in me all the way. And especially to all my grandparents and my parents: thank you for your patience, encouragement, home cooking, enthusiasm, and support. I love you.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
CHAPTER	
I INTRODUCTION.....	1
II LITERATURE REVIEW.....	3
III METHODOLOGY.....	32
IV FINDINGS.....	38
V DISCUSSION.....	73
REFERENCES.....	85
APPENDICES	
Appendix A: The Human Subjects Review Committee letter.....	89
Appendix B: Participant informed consent form.....	90
Appendix C: Demographics form and interview guide.....	93

## CHAPTER I

### INTRODUCTION

Conscious breathing is a common element of many practices based on holistic paradigms of health (Brown & Gerbarg, 2005a; Kerr, 2002; Napoli, Krech, & Holley, 2005). As Vietnamese Buddhist monk Thich Nhat Hanh explains, “breath is the bridge which connects life to consciousness, which unites your body to your thoughts” (2003, p. 77). It can seem strange for many people, particularly those who have been raised with the dominant paradigm of health in the U.S., to consider that their conscious breathing could be so intimately related to their physical and mental health. Therefore, much of the recent research has focused on defining the empirical relationship between conscious breathing and physical health, and conscious breathing and emotions. Though researchers have found that such relationships are challenging to quantify, the literature suggests that there is a connection between breathing, physiology, psychology, spirituality, and healing.

The following study will examine how conscious breathing can be used in clinical mental health practice today. Given the intimate connection between mind, body, and spirit that holistic approaches to healing assume, how can breathing be understood in terms of its role within psychotherapy? Could such a paradigm for healing be conceptualized in such a way that it fits present day clinical theory? And how can psychotherapists use and integrate conscious breathing into their practices? As

traditionally holistic health practices become increasingly accessible to western healing practices, it is important for psychotherapists to understand how to use tools like breathing in effective, appropriate ways. This study will contribute to that knowledge, and lay a foundation upon which future researchers can explore the topic. Therefore, it is the intent of this study to develop a more specific understanding of how psychotherapists can use the breath to enhance clinical practice by asking the research question: how do psychotherapists conceptualize and utilize conscious breathing in clinical practice?

## CHAPTER II

### LITERATURE REVIEW

In order to study the role of breathing in psychotherapy, it is important to take a close look at the evidence-based research that has already been conducted on the subject. In a search of psychology and social work journals, however, no empirical studies focusing singularly on the role of breathing in psychotherapy appear to have been published. In the absence of existing research on this particular subject, the relationship between breathing, mental health, and clinical practice will be examined through three different lenses. The first lens is that of the western medical community: what does medical research say about the relationship of breathing and emotions? And what does research say about the effects of conscious breathing on mental health? The second lens is that of traditional Complementary and Alternative Medicines (CAM): how have traditional forms of medicine incorporated breathing into their practice and what does research show about the relationship between breathing and mental health in those practices? Thirdly, through the lens of psychological theory, implications of the uses of breathing in psychotherapy are considered. That is, what does psychodynamic and behavioral therapy research suggest about the use of breathing in psychotherapy, and what does research show?

Over the last two decades, psychology and medical journals have increasingly published studies about how breathing relates to physical and emotional well-being. The



studies reviewed in this chapter come from ten countries spanning five continents. Such international attention to the role that breathing plays in well-being speaks to the universality of both the interest in and the applicability of this topic. Furthermore, the research presented comes not only from multiple countries, but multiple cultures as well, representing a plethora of cultural views and conceptions about the role that breathing plays in emotional and overall health.

*Evidence-based research on breathing and emotions: Respiratory psychophysiology*

The academic field of clinical psychophysiology emerged in the 1940's and 50's. Now considered to be a branch of psychology, the discipline arose out of an increasing amount of research by psychiatrists, psychologists, and alternative health practitioners who were interested in examining the relationship between the mind and body. Respiratory psychophysiology specifically looks at the relationship between the physiological aspects of breathing and psychological phenomena, and was formalized with the inception of the International Symposium on Respiratory Psychophysiology in 1970 out of a hospital in London, (International Society for the Advancement of Respiratory Psychophysiology [ISARP], n.d.). The following section presents a part of this growing body of research on the interrelationship of breathing and emotions.

A study by University of Amsterdam professors Rietveld and Prins (1998) provides one example of the kind of exploration being done on how people's psychology and emotions are connected with how they experience their breathing. Using an experimental study to test the correlation of asthma (implicit in which is breathing) and negative emotions, they hypothesized that having negative emotions alone could precipitate asthmatic symptoms. In a sample of 40 children ages seven to 18 with a

doctor's diagnosis of asthma, the researchers replicated a previously published study on non-asthmatic children of the same age and used the original study as its control group. Measuring anxiety and asthmatic symptoms both pre- and post- intervention, the researchers used four conditions in their intervention, (1) an emotional film, (2) physical exercise, (3) an emotional film followed by physical exercise, and (4) physical exercise followed by an emotional film. They found that viewing the emotional film by itself did not induce asthmatic symptoms. However, participants who had watched to emotional film prior to exercising reported experiencing significantly more asthmatic symptoms, such as breathlessness and airway obstruction, as compared to the group who had not seen the emotional film before exercising. The researchers suggest that these findings indicate a difference between true asthma-related symptoms, and symptoms that are described as 'asthma' but are actually induced by anxiety and emotional breathing patterns.

Based out of Showa University School of Medicine in Tokyo, Japan, Homma and Masaoka (2008) looked at the relationship between environment, respiration, and emotions by reviewing studies on how olfactory functioning and respiration in animals and humans are connected. They start their review by differentiating between *metabolic breathing*—the neuro-chemical generation of respiration in response to metabolic demands—and *behavioral breathing*—the notion that internal and external environmental factors influence respiration (Homma & Masaoka, 2008). They present scientific research suggesting that a person's sense of smell is connected to their emotions because when a person inhales, their breathing activates the set of brain structures related to emotion, behavior, and long-term memory. Other studies, they report, show that unpleasant odors

increase respiratory rate and induce shallow breathing, whereas pleasant odors induce deep breathing. They also point out that “animals have long used olfactory senses to identify danger, food, members of opposite sex” and that respiratory rate often responds faster than cognition (Homma & Masaoka, 2008, p. 1015).

They include no methodology section—which is a limitation of their study—but include over 60 references, including ten articles they authored themselves. Most of the studies reviewed are published in neuroscience, neurophysiology, neurobiology, and psychophysiology journals, however little is said about the methodologies of these studies either. Another significant limitation to their review is the authors’ possible bias towards their findings. In a section subtitled “emotional breathing in humans” they state that, “emotions involve physiological changes within the entire body,” citing one of their own studies (Homma & Masaoka, 2008, p. 1012).

Two researchers in the United States published an opinion piece debating whether respiration rate is pre-determined, or whether it is driven by environmental influences. Fontanini and Bower (2006) cite 85 articles, including seven of their own studies, from similar journals to which Homma and Masaoka referred. They concluded that respiration rate is likely influenced by a combination of internal and external influences on the olfactory cortex, but that much research is still needed. In addition, the authors discuss an ongoing debate in the neuroscience community over how meditation works. They note three studies since 2002 that have compared brain-waves during slow, controlled breathing and during sleep, and have found them to be similar. The recent findings, they say, suggest that slow, controlled breathing seems to induce slow-wave sleep in an active state (Fontanini & Bower, 2006, p. 435). The findings that Fontanini and Bower (2006)

present suggest there is a connection between breathing and emotion in two ways. First, their article discusses the ways in which external and internal emotions can influence an individual's breathing rhythm. Second, their article presents research that shows controlled deep breathing rhythms seem to induce a sleep-state often associated with relaxation. Their conclusion is that much more experimental research is needed to understand the relationship between the olfactory system and respiration, and slow-wave sleep and respiration. Though the authors cite an array of articles from the last decade, their article is limited by the lack of information presented on the methodologies of the studies they discuss. Additionally, they note that most of the studies they cite used anesthetized subjects, precluding the generalizability of these findings to situations in which people are fully conscious.

While many of the above studies and reviews objectively measure the rate of their subjects' breathing, Petersen, Orth, and Ritz (2008) researched how those objective measures of breathing compared to the participants' subjective experiences. For their study, the researchers (of the University of Hamburg and Southern Methodist Baptist in Texas) used a fixed methods experimental design in which participants completed a protocol of seven physical conditions from quiet sitting to voluntary hyperventilation, and then rated their respiratory sensations on a scale from zero to ten. The researchers used a standard list of 20 descriptors of respiratory sensation to capture subjects' (14 "healthy" non-smoking students aged 21 to 24) experiences. In spite of the small number of participants, and the homogenous sampling, Petersen et al. (2008) found that the sensations associated with the feeling of breathlessness tend to be multi-dimensional and centered around the quality of the experience (e.g. need for air) rather than how intense it

was for them (e.g. how much they needed the air). They contended that the study showed that respiratory bodily sensation is in many ways constructed by the individual experiencing it. This study relates to that of Rietveld and Prins (1998), therefore, in affirming the possibility that a person's psychology will inform his or her experience of breathing and health.

### *Debate on efficacy of breathing exercises*

Parallel to the debate around whether or not breathing and emotions are connected, there is a long-standing debate in popular western culture as to whether or not breathing exercises can affect mental well-being as well. As a result, in addition to the neurological and physiological research on breathing and emotions in medical journals, there is also a body of research on the effectiveness of breathing exercises in reducing negative emotions like anxiety, and inducing a sense of relaxation. The six articles presented below, mostly experimental studies, attempt to test the effectiveness of breathing exercises on a given condition.

Grossman, Grossman, Schein, Zimlichman, and Gavish (2001) studied the correlation between breathing-control and blood pressure, which the authors note is commonly related to stress. Based out of Chaim Sheba Medical Center in Israel, the subjects were 33 patients diagnosed with hypertension, 23 males and 10 females ages 25 to 75. Subjects were divided into equal groups of those not taking medication, those taking one medication, and those taking two or more medications. The interventions took place over eight weeks, and subjects were assigned to one of two different treatment groups. The treatment was assigned randomly and the study was double-blinded. Patients' blood pressure was taken two weeks before the study started. Both interventions

included 10 minutes of nightly music, every day for eight weeks. One group was given a BIM machine that plays music at an identifiable, slow-paced rhythm that simultaneously measures the subjects breathing rate and slows down as the subjects breathing slows. The second group listened to a-rhythmic music on a portable music player through headphones. The study found that while participants in both groups experienced a drop in blood pressure, the group that did breathing exercises guided by the BIM device had greater results. The researchers suggested the study proved the BIM device to be an effective non-pharmacological treatment for reducing blood pressure. One limitation was that the intervention did not prove that the breathing itself was the catalyst for lowering blood pressure. The authors themselves suggest that it could have been that listening to rhythmic music, and taking time out of each day to relax, could have had a significant impact on the findings as well. Nevertheless, their findings establish a link between one's breathing pattern and psychological state.

Two other studies address the same question as Grossman et al. (2001) as to whether or not breathing exercises induce relaxation. While Grossman et al. (2001) used blood pressure as their measure of the impact of breathing on well-being, researchers of the following two studies used psychological measures to capture the effects of breathing on well-being. First, Matsumoto and Smith (2001) compared the psychological effects of Progressive Muscle Relaxation (PMR), a guided series of actions in which subjects tense up specific muscles and then relax them, to deep breathing exercises on students. Based out of the Roosevelt University Stress Institute in Chicago, Illinois, 42 undergraduate college students participated in the study, 14 males and 28 females, averaging an age of 19 years old. Subjects were randomly assigned to either a PMR or deep breathing group.

Each group met weekly for five consecutive weeks for 30-minute sessions with the experimenter, who followed scripts of exercise sequences for each modality. The Smith Relaxation States Inventory (SRSI)—published by one of the researchers the same year this study was published—was administered pre- and post-test every week. The SRSI is an emotional state-inventory in which participants indicate how they feel in the moment using a Likert scale. The researchers found that there were minimal differential results between the two interventions. That said, PMR participants scored higher on disengagement, physical relaxation, mental quiet, and joy. In contrast, the subjects in the deep breathing group scored higher on strength and awareness of emotion-states. A major limitation of this study was that the presenter administering the interventions was not blind to the researchers' hypotheses. Furthermore, the researchers used their own scale as a sole measure for their data based on a unique theory constructed by one of the authors.

In the second study, Watson, Tuorila, Vickers, Gearhart, and Mendez (1997) compared the effects of three relaxation techniques in Vietnam War veterans with a DSM-III diagnosis of Post-Traumatic Stress Disorder (PTSD). The three techniques were: relaxation instructions (defined by the researchers as directives given by a facilitator to subjects to relax as much as possible), relaxation instruction with deep breathing exercises, and relaxation instructions with deep breathing training and thermal biofeedback. Conducted by staff of the Department of Veterans Affairs Medicine Center in St. Cloud, Minnesota, 90 male Vietnam War veterans who were in treatment for PTSD participated in the study. The average age was 45, their education level was similar in that most had not finished college, and each group had less than 20% people of color. Subjects were randomly assigned to one of the three regimens, and subsequently met for

ten 30-minute sessions individually with a trained psychologist who administered the treatment and conducted assessments. Only subjects who participated in at least nine of the ten sessions were included in the analysis. Participants in the relaxation cohort were instructed to sit in a reclining chair for 30 minutes. The deep breathing group was sitting in a reclining chair and also given detailed instruction “to gradually fill their lungs and then exhale slowly and thoroughly” (Watson et al., 1997, p. 919). For the biofeedback group, a sensory apparatus was attached to each subjects’ finger that measured their skin temperature, which is correlated with relaxation. Subjects would hear a tone indicating their level of relaxation and were told to lower the tone as much as possible over the course of their session. Participants were assessed pre- and post-intervention using the Mississippi Scale for combat related PTSD, which measures the severity of PTSD symptoms. Researchers found that that the average amount of within-session relaxation did not vary significantly across the three intervention-groups. Physiological outcomes that indicated improvement over time included “exaggerated startle,” “intrusive memory,” and “finger temperature” (Watson et al., 1997, p. 920).

Though their studies had different designs and used different measures, Matsumoto and Smith (2001) and Watson et al. (1997) shared some common results. The most striking commonality was that both studies found moderate therapeutic benefits across all interventions, but neither study found differential results between the various relaxation interventions. That is, Matsumoto and Smith (2001) reported that neither PMR nor deep breathing had significant “differential effects on cognitive or physical stress” (p. 1156). Watson et al. (1997) too reported that relaxation occurred during the sessions, but comparatively, the mean amount of within-session relaxation did not vary substantially



across the three treatment regimens. The authors of each study, however, due to having used different measures, reached slightly divergent conclusions. Matsumoto and Smith (2001) concluded that the results showed that PMR is more likely to “evoke physical relaxation and disengagement, whereas breathing evokes feelings of strength and awareness” (p. 1555). Watson et al. (1997), on the other hand, concluded that though their results suggested that all three interventions were therapeutic, “the additions of deep breathing and thermal biofeedback both failed to improve on the gains associated with instructions to relax and sitting in a comfortable chair” (p. 920). The results of these studies are striking in that neither particularly supports the notion of employing breathing exercises over other interventions for relaxation. That said, a limitation of both studies is that none of the researchers made an effort to measure or observe the amount of deep breathing that was taking place in the non-breathing groups.

In contrast, two studies on the effects of breathing exercises on test anxiety conclude that engaging in breathing interventions can help to mitigate anxiety. Paul, Elam, and Verhulst (2007) conducted a longitudinal, descriptive study to assess the effects of Deep Breathing Meditation (DBM), defined by the authors as “[taking] several minutes of quiet time to focus on your breathing as a stress management strategy” (p. 288). The participants were sixty-four post-baccalaureate students enrolled in a pre-medical program for students of color. Fifty-three were women, eleven men, fifty-eight were African-American, four were Hispanic, one was Asian, and one Native American. About two-thirds of the students had never been introduced to DBM prior to the study. Reproducing the intervention with two cohorts over 10-month periods each, the

researchers gathered medical students' perceived symptoms and beliefs regarding the stresses associated with testing situations and academics.

Over the course of their first ten months in the pre-medical program, students received didactic instruction on DBM, a ten-minute individual coaching session on DBM, and a one-hour lecture on studies that show that meditation improves academic scores. Over the ten-month study, instructors led a total of 95 five-minute in-class practice sessions (averaging about twice per week). The researchers surveyed participants using an instrument developed by the author, designed to assess for feelings and beliefs about DBM. The instrument was administered immediately before their first course of the summer, at the end of summer session (6 weeks later), and then in the following April after taking the MCAT. Paul, Elam, and Verhulst (2007) reported that students experienced significantly less test anxiety, nervousness, and self-doubt, as well as increased concentration during exams from June to April. For both study cohorts, the greatest changes in test anxiety and performance occurred within the first six weeks of the study period. The results suggest that deep breathing instruction and regular practice are powerful therapeutic and empowerment tools to help mitigate anxious feelings.

One limitation of the study is that the researchers were biased towards the premise that DBM is an “empowering” stress management technique. An additional limitation, similar to previous studies noted in this review, is that there was no control group, and thus it is not clear that students who do not engage in DBM practice would have had higher levels of stress.

Similar to Paul, Elam, and Verhulst (2007), a study by Shcherbatykh (2000) explores the effects of breathing exercises on test anxiety in students. Based out of the

Burdenko State Medical Academy in Russia, Shcherbatykh (2000) used a sample of students ages one through twenty. The author did not describe the racial or ethnic composition of the sample. Twenty-eight people comprised the experimental group, while the control group consisted of 102 students. For the intervention, researchers guided participants in the experimental group through three pre-examination exercises: inward concentration on respiration, autogenic body relaxation, and brainstorming a success strategy for the pending exam. The researcher used physiological measures to assess for the extent to which students' parasympathetic systems had been engaged during the exercises (the parasympathetic system is known as being responsible for the actions of resting, digesting, and coping with stress). The physiological measures included heart rate, arterial pressure, cardiac rhythm, and respiratory capacity among others. The results showed that the interventions increased respiratory capacity and lowered blood pressure. The researcher concluded that the use of "self-regulatory" interventions before examinations "allows us to decrease significantly the level of emotional strain and to restore the autonomic homeostasis disturbed by stress" (Shcherbatykh, 2000, p. 642). One of the strengths of the study was the multitude of measures that the researcher used to assess for parasympathetic system functioning. The applicability of this study is limited, however, by the omission of a detailed explanation of what the intervention entailed, and what the control group experienced as well.

The studies in this section demonstrate that breathing exercises can play a role in decreasing anxiety and promoting relaxation. These studies have most commonly been recruited subjects from populations renown for having high stress levels, such as university students, patients with hypertension (Grossman et al., 2001), and veterans with

diagnoses of PTSD (Watson et al., 1997). Although there is mounting evidence that consciously employing breathing exercises can help to mitigate stress particularly in relation to test anxiety and self-doubt, the extent to which breathing exercises contribute to those outcomes is still being debated in the literature.

*Evidence-based research on breathing in Yoga & Mindfulness Meditation*

This section looks at the published, peer-reviewed research on mental health outcomes of two traditional medical practices that incorporate breathing as a core component: yoga and mindfulness meditation. *Pranayama*, or the voluntary control of one's breathing, is a foundational component of yoga (Brown & Gerbarg, 2005a). In pranayama, practitioners may manipulate the duration of the inhalation, exhalation, or retention of his or her breath breathe unilaterally through one nostril at a time, or engage in different muscles in the torso, chest, lungs, or throat. Alternatively, the focus of mindfulness meditation is less on breathing technique and more on developing "a stance of detached observation" to the moment, primarily by bringing awareness to the inhalation and exhalation of the breath (Evans et al., 2007, p. 717). The underlying belief is that one learns to be "fully-present" through the practice of focusing on the experience of breathing (Napoli, Krech, & Holley, 2005, p. 101). Though the ways yoga and mindfulness use breathing are different, both styles of using breathing have encountered similar degrees of skepticism and support from the research community in recent years as to the role they play in facilitating mental well-being.

There are several experimental studies on pranayama and Mindfulness Meditation (MM) that show positive correlations between such practices and mental well-being. Four experimental studies in the last two years, two in India, one in Sweden, and one in the

US, showed that pranayama and yoga practices lead to positive mental health outcomes (Kjellgren, Bood, Axelsson, Norlander, & Saatcioglu, 2007; Krishnamurthy & Telles, 2007; Moadel et al., 2007; Raghuraj & Telles, 2008). Four recent studies on MM, three from the US and one from Canada, also showed positive correlations between pranayama and well-being (Carlson, Speca, Patel, & Goodey, 2004; Evans et al., 2007; Napoli et al. 2005; Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007).

The researchers mostly used experimental designs in an effort to understand how yoga or MM effects outcomes like mood, depression, anxiety, self-esteem, quality of life, and general well-being. Samuelson et al. (2007) was one study that did not use an experimental design because they used existing data. Of the eight articles reviewed here, only three were controlled, randomized studies (Krishnamurthy & Telles, 2007; Moadel et al., 2007; Napoli et al., 2005). Some of the many components of a yoga or MM program intervention, acknowledged in different permutations by every researcher, include physical postures, breathing exercises, breathing or body-awareness, meditation, social support, professional attention, and so on.

The populations covered in these studies were quite diverse, but women participants dominated most. Krishnamurthy & Telles (2007) looked at the effects of physical yoga postures and regulated breathing on depressed adults ages 60-95 in nursing homes in India, two-thirds of whom were women. Raghuraj & Telles (2008) studied students in intensive yoga training at a medical center in India and was the only study to recruit only men. Unlike the other researchers, Raghuraj & Telles (2008) used mostly medical measurements like heart rate and blood pressure, and claimed that they excluded women to control for autonomic variables caused by the menstrual cycle. Kjellgren et al.

(2007) enrolled “healthy” participants in Sweden, about two-thirds of whom were female and an average of 32 years old, and Moadel et al. (2007) recruited only women oncology outpatients in an inner-city New York hospital averaging 55 years in age. Moadel et al. (2007) were the only researchers that recruited a multi-racial, ethnically diverse study cohort. Of the 128 participants who completed their three month study intervention, 42% were African American, 31% Hispanic, and 23% White. Napoli et al. (2005) studied the impacts of MM on attention and mood in children in two American, Southwest public elementary school, and Samuelson et al. (2007) analyzed pre- and post-course measurements of mood, hostility, and self-esteem in approximately 2,000 prison inmates in Massachusetts. Neither researcher reported the ethnic, racial, or socio-economic status breakdowns of their samples, however Samuelson et al. (2007) reported they did not have access the that information. Evan et al. (2007) noted that their study participants were predominantly upper-middle class, highly educated American women, and Carlson et al. (2004) reported that in their sample of early stage oncology patients in Canada, the average age was 50 and three-quarters of participants were women. None of the authors considered the impact of their sample’s race, class, culture, or location on outcomes.

Due to a host of common limitations, most of the authors reported that the results of their studies were inconclusive in regards to how yogic breathing and MM impact mental health. However, researchers unanimously found that the interventions they used were helpful to their participants and called for further research. Both Krishnamurthy & Telles (2007) and Kjellgren et al. (2007) found the yoga control group’s rates of depression to decrease about thirty-three percent over time (over six months and three months respectively). Both researchers also noted an increase in optimism and

confidence. Moadel et al. (2007) also found that emotional well-being increased.

Considering that their participants were oncology-patients undergoing large amounts of stress, the researcher interpreted both findings to be significant.

Carlson et al. (2004) found that MBSR program enrollment by early-stage breast and prostate cancer patients was associated with enhanced quality of life (e.g. exercise and sleep quality increased), and a decrease in stress symptoms. However, they noted that the decrease in symptoms was not correlated with the degree of program attendance or minutes practiced at home. In the Napoli et al. (2005) study of elementary school children, participants were better sustain their attention in class and experienced a decrease in test anxiety, and teachers noted their having fewer problems in the classroom. Greater improvements were observed for incarcerated women than for men in measures of hostility, self-esteem, and mood in the Samuelson et al. (2007) study, and men in maximum-security prisons seemed to have greater improvements in those same measures than men in lower-security prisons. Results of this study are considered cautiously, however, due to the informal study design, and the vulnerability of the population in that they might have felt pressured to give positive responses.

A common strength of these eight studies was the researchers' commitment to regular (weekly, if not daily) intervention designs over a substantial period of time. The longest intervention took place in the nursing home in India, where participants committed to 6 months of regular yoga practice at seven hours and thirty minutes per week (Krishnamurthy & Telles, 2007). In elementary schools, Napoli et al. (2005) designed a series of twelve 45-minute, bi-monthly MM training sessions in elementary schools. The three other MM studies followed a traditional 8-week Mindfulness Based

Stress Reduction program (MBSR) structure, meeting once per week for 60 to 150 minutes, and one additional time for a silent retreat of three to six hours. The yoga interventions averaged weekly one to two hour sessions over three months.

Many of the studies also share similar weaknesses. The holistic nature of yoga and MM, for instance, brought about a host of limitations to the studies. First of all, it made it difficult for researchers to tease out the specific role that breathing played in the overall outcomes. Carlson et al. (2004) observed that due to the multitude of variables, “the relative importance of different components... cannot be ascertained” (p. 467). Furthermore, they note that the most useful aspects of a program may “vary from person to person depending on the individual’s needs, background, and personality.” The conundrum of “controlling” a study on an alternative health modality like yoga or MM resonates throughout the literature; and could be perhaps one of the greatest challenges for researchers who seek to prove efficacy.

The holistic nature of yoga and MM also limited the study results in that blinding was not possible (Kjellgren et al., 2007). Not only were participants un-blinded, many of the studies introduced theoretical biases into the intervention, and for those studies that did not, it possible that theoretical underpinnings of, or the intentions behind the practices were implied in the course of teaching them. For all studies, then, whether they included a theoretical component or not, researcher bias is a factor that should be considered when reviewing the results. As a body of research, this cluster of studies is further disadvantaged in the sense that most researchers used different mechanisms for measuring variables, which makes comparing the data difficult.



Additionally, the fact that results tended to be observed over time meant that there was more room for outside factors to influence study outcomes (Napoli et al., 2005). In light of the lengthy time commitment required of participants, researchers did not tend to report drop-out rates as a limitation to their studies. Rather, researchers cited a need for more long-term research, following up with participants after the intervention.

Each of the studies presented in this section attempts to measure the effects of traditional medical practices like yoga and mindfulness meditation. In reviewing such studies, however, it is important to recognize the basic differences between the traditional practice itself, and the medical model-orientation often used to measure it. Kerr (2002) writes about her experience as Principal Investigator for a study assessing the effects of *qigong* (a traditional Chinese movement therapy). What she found was that the qigong master she had hired to facilitate the intervention, and the biostatistician in charge of computing the results each had “different explanatory models for understanding how a mind-body intervention like qigong might prove therapeutic” (Kerr, 2002, p. 422). Through informal interviews, Kerr found that the biostatistician understood qigong to operate similar to a general relaxation movement therapy. On the other hand, the qigong master conceptualized qigong to use physical postures to move *qi* or energy through the internal organs of the body. Kerr argues that gaps like these “in understanding between researchers and practitioners may be hindering scientific efforts to assess therapies like qigong” (Kerr, 2002, p. 419). She advocates for greater cultural sensitivity in this area of research, and encourages researchers in the field to acknowledge the ways culture, and “cultural perspectives of healing” may impact both the efficacy and experience of a mind-body therapy like qigong. In considering the studies reviewed above, Kerr’s insight

serves to highlight the lack of discussion of how “cultural perspectives of healing” could have influenced the study results.

*Complimentary and Alternative Medicine, social work, and psychotherapy*

In spite of the lack of evidence-based research on the efficacy of Complimentary and Alternative Medicine (CAM) modalities like yoga and mindfulness meditation, Americans are increasingly integrating CAM practices into their health care. Between 1990 and 1997, the overall use of CAM services increased by 25%, total visits to CAM providers increased by 47%, and expenditures increased by 45%, or an estimated 21 billion dollars (Eisenberg et al., 2001, p. 344). In an analysis of a nationally representative, random-household phone survey, Eisenberg et al. (2001) found that though 70% of respondents consulted a western doctor before a CAM specialist, perceived confidence in CAM providers was not substantially different from western providers. In 2002, the National Center for Complimentary and Alternative Medicine (NCCAM) became a fully funded center under the National Institutes of Health (NIH). Identified “research into the therapeutic potential of indigenous healing systems” as one of its top goals (Kerr, 2002, p. 420).

In their article titled *Mind-body interventions: Applications for social work practice*, Finger & Arnold (2002) argue that there are many ways social workers can incorporate CAM into their practices. They note that social workers have historically taken a holistic approach to treatment, but that the profession as a whole has not sought to incorporate increasingly popular mind-body modalities. Furthermore, in light of the growing CAM market, they argue that social work practice should be expanded “for future marketability and competition” of the profession (Finger & Arnold, 2002, p. 70).

Interestingly, many researchers whose studies are reviewed above suggest that these practices could be used as complements to other medical and psychotherapeutic care (Kjellgren et al., 2007; Napoli et al., 2005). Evans et al. (2007) noted that the interventions they studied could also be used as psychoeducational and cognitive-behavioral interventions when considered from a psychology perspective.

Similarly, Becvar, Cook, and Pontious (1998) argue that psychotherapy clients would be better served if clinicians had knowledge of CAM therapies. Their article on the subject includes detailed descriptions of several different types of CAM practices from mind-body modalities to herbal medicine, with the intention of “demystifying CAM approaches to healing” (Becvar et al., 1998, p. 438). They contend that CAM therapies have long been “fear[ed],” “ignor[ed],” and undervalued by psychotherapists (1998, p. 437), and argue instead that it is important for clinicians to understand different healing traditions, so that they are better able to draw on them as resources in practice. They assert that family therapy and CAM “dovetail nicely” because they share some foundational assumptions (Becvar et al., 1998, p. 451). Both are based in holistic, systems-oriented perspectives, and that “the two realms share acceptance of the interdependence of people and systems at all levels” (Becvar et al., 1998, p. 450). While their article draws interesting and thought provoking parallels between the CAM and family therapy, however, there is very little discussion of how those similarities enable the treatments to “dovetail” in practice, or how family therapists can specifically go about incorporating CAM therapies into the therapy they provide.

Like Finger and Arnold (2002), and Becvar et al (1998), Calabrese (2008) asserts that common contemporary conceptions of what constitutes “psychotherapeutic

intervention” should be expanded beyond “rational talk therapy” (p. 335). Calabrese (2008) differentiates between the terms “psychotherapeutic intervention” and “psychotherapy,” the former, he argues, referring to a broader concept of psychological and relational healing than the latter. Basing his thesis on his year of clinical psychology practice with Native American clients, Calabrese (2008) argues that psychotherapy, as it has come to be understood and standardized, functions on euro-centric paradigms of healing. That is, healing in Euro-American psychotherapy is based on “positivist, rationalist, secular, and mind-body dualist” assumptions, emphasizing “the dyadic (one-to-one) healer-patient relationship (Calabrese, 2008, p. 348). In contrast, healing in the Navajo tradition is more often communal, “focused on experiences rather than reasoning ... and embedded in a system of spiritual understandings and practices” involving an “integrated understanding of mind and body” (Calabrese, 2008, p. 348). Despite these paradigm clashes, Calabrese argues that traditional healing methods often embody many psychotherapeutic principles. Understanding this paradigm clash, while recognizing the therapeutic benefit of traditional practices, serves to broaden common conceptions of what psychotherapeutic intervention can be to include a range of psychological, relational, and experiential methods of healing (Calabrese, 2008).

#### *Research on Conscious Breathing Interventions for Mental Health Practice*

Thus far this literature review has examined what research—in both western and traditional medical communities—says about the role of breathing in emotional health and has explored the emerging discussion on broadening traditional conceptions of psychotherapy to include traditional and alternative medical practices. This final section

considers the small handful of published studies that look at the effects of using breathing as a therapeutic intervention.

There are a handful of studies that look at the efficacy of Cognitive Behavioral Therapy (CBT) groups for people with diagnoses such as PTSD and panic disorders (Mueser et al., 2007; Penava, Otto, Maki, & Pollack, 1998; Schmidt et al., 2000). These groups are generally based on 12-week, peer-reviewed, manualized CBT program models that employ a variety of interventions from cognitive-restructuring and psycho-education, to interoceptive exposure and coping skills. Across the board, *breathing re-training* (BR), also known as *diaphragmatic breathing*, is one of the highlighted coping skills taught in these groups. In a search for empirical studies on CBT treatment, most studies followed the template-intervention as described above, differing mostly in the types of subjects they recruited. It should be noted that the role of breathing in this type of CBT treatment is the main focus of only one of the articles found in the literature search. This clearly illustrates the minimal attention paid to the use of breathing in therapeutic intervention despite its pervasive role in CBT treatment over the past several decades. In fact, only one study that surfaced in the article search questions the generally accepted model for the CBT therapy groups (Schmidt et al., 2000). Schmidt et al. (2000) hypothesizes that not all segments of traditional CBT therapy groups are equal, and that in fact the use of BR specifically is ineffective and possibly countertherapeutic. For the purposes of this paper, Schmidt et al. (2000) is compared to Penava et al. (1998) with specific attention paid to the role of BR in each study. Penava et al. (1998) was selected in particular to compare and contrast with Schmidt et al. (2000) because of the similarities between the subjects recruited and CBT models used in both studies.

As mentioned above, though the interventions and participant populations were similar, the goals of Penava et al. (1998) and Schmidt et al. (2000) were different. Whereas Penava et al (1998) sought to examine the rate of symptom improvement during group CBT for panic disorder, Schmidt et al. (2000) intended to assess the efficacy of incorporating BR into group CBT treatment. The impetus for their study was to address an emerging argument that BR is a “false safety aid” in that it is designed to minimize negative symptoms rather than providing corrective learning experiences that eliminate the underlying fear altogether (Schmidt et al., 2000, p. 418). In contrast, Penava et al. (1998) suggested that somatic symptom management and relaxation techniques using BR and other breathing exercises is at the foundation of many CBT treatment packages, and does not question its inclusion in the intervention.

Participants in both studies were recruited through outpatient, group cognitive-behavioral therapy programs, and in both studies all participants met diagnostic criteria for panic disorder. Schmidt et al. (2000) recruited 77 participants, 54% of whom were taking psychotropic medications, and Penava et al. (1998) recruited 37 participants, 73% taking psychotropic medications. In both studies, about 70% of the subjects were female with the mean age of subjects being 36 or 38 years. Neither study recruited participants with co-morbid diagnoses of schizophrenia, bipolar disorder, or organic mental disorder. Schmidt et al. (2000) reported that 83% of their participants were Caucasian, 60% married, and 77% in full time employment. Penava et al. (1998) provided no demographical information on their subjects.

Interventions in both studies were manually driven by 12-week CBT protocols as described above. Penava et al. (1998) reported starting each intervention with training in

BR. Schmidt et al. (2000) are not specific as to how BR was incorporated into their intervention. The principal researcher, Norman B. Schmidt, administered treatment in the case of Schmidt et al. (2000), whereas pre- and post-doctoral interns administered treatment in the case of Penava et al. (1998). Schmidt et al. (2000) however, separated participants into three types of groups, one including all BR techniques in the CBT protocol, another excluding all BR techniques, and the third type of group occasionally including BR techniques in their sessions. Each session for Schmidt et al. (2000) was 120 minutes, and for Penava et al. (1998) each session was 90 minutes. Schmidt et al. (2000) used a more extensive battery of assessment measurements, including self-rated and clinician-rated scales, which were completed pretreatment, immediately following treatment, and six- and twelve-months post-treatment. Penava et al. (1998) used a smaller number of assessment scales which were all self-rated by participants at the conclusion of each treatment session.

While both studies claimed that the basic CBT protocol is helpful for symptom relief, Schmidt et al. (2000) went a step further in citing that their data suggests that subjects receiving BR in treatment “exhibited trends towards poorer end-state functioning” as compared to their counterparts who had received strictly CBT training (p. 423). Penava et al. (1998) observed increasing incremental benefits for participants after the first and second months of treatment for participants. The results led them to conclude that “multi-component treatment” can lead to improvement “across a range of symptom dimensions” (p. 672). On the other hand, Schmidt et al. (2000) argue that “there is little question that BR had been shown to provide some level of symptomatic relief [for patients],” but that symptom relief should not be the only desired outcome of CBT

treatment. Furthermore, they contend that the addition of BR “does not yield any clear benefits to a treatment package consisting of education, cognitive restructuring, and exposure-based techniques,” and that “some data suggest that introduction of BR may adversely affect patients” (p. 423). From the data they collected, Schmidt et al. (2000) conclude that “teaching cognitive and interoceptive techniques would be a better use of time” over teaching a coping skill like BR (p. 423). A major limitation of the Schmidt study is that the principal investigator himself administered all interventions, which opens the door for the possible influence of researcher’s bias.

In contrast to the way breathing is used as an intervention in the CBT studies, Novosad and Thoman (2003) use breathing in a much different way. Novosad and Thoman (2003) assessed the effects of giving a crying child a “breathing bear,” which is essentially a teddy-bear designed to breathe silently, with gentle body movements. The breathing bear is also designed such that the rhythm of its breath can be adjusted to mimic the breathing pattern of the infant participant. Researchers recruited 72 full-term infants 5 weeks to 6 months of age whose parents complained their child’s crying was “a source of stress” for them (Novosad & Thoman, 2003, p. 90). Thirty-five infants were placed in the breathing bear group (18 males, 19 females), and 37 were placed in the control group. Across both groups, most families that participated were of middle-income, and parents averaged 14.7 years of education. For the intervention, whenever caregivers placed their child in their crib, they were instructed to turn on the pump activating the breathing bear and adjust the breath rate of the bear to match the breathing rate of the infant during sleep. The breathing bears remained in the home for about five months. Researchers theorized that the bear could not over stimulate the infants



participants because the bear was silent, and the child could theoretically choose when to reach for or avoid the bear. To measure the impact of the intervention, mothers the levels of their infant's crying and fussiness to research assistants, and completed temperament rating scales on their child. Mother's feelings of stress and depression were also assessed during and after the intervention, at five weeks, nine weeks, six months, and seven months. Novosad and Thoman (2003) said they expected the breathing bear to diminish crying in the home, but reported that the results did not confirm their hypothesis, and in fact "crying time" as estimated by the mothers for the infants in the breathing bear and non-breathing bear groups did not differ.

The authors reported that mothers in the breathing bear group associated their infants with more positive feelings throughout the study. Additionally, mothers were reportedly very enthusiastic about having the breathing bear in the home, leading researchers to suggest that mothers may have felt reassured by having the breathing bear for their child. The authors suggest that this study is limited by the use of crying time as a measure of breathing bear efficacy. Arguably, however, using mothers' subjective observations for measuring effects of the bear on the child puts the results in greater question. Another significant limitation is that this study has yet to be replicated, leaving in question many of the conclusions given by the authors.

Though the breathing bear study (Novosad & Thoman, 2003) has not been replicated, other infant researchers (Beebe, Rustin, Sorter, & Knolauch, 2003) have studied how preverbal communication can be used to soothe or regulate an infant. Beebe et al. (2003) review prominent infant research on nonverbal communication between mother-infant dyads from 1996 and on. In their review they suggest that such nonverbal

communication between a mother and child is comparable to the nonverbal communication implicit in psychotherapy between a clinician and client (p. 806). Beebe et al. (2003) put forward the idea that “all forms of interactive regulation are relevant to the possibility of perceiving and aligning oneself with the moment-by-moment process of the other” (p. 807). That is, they suggest that nonverbal patterns of communication, such as coordination and matching, through vocal, facial, gazing, and body movement expressions, inherently provide powerful mirroring and empathic experiences without words (p. 813). Though studies are cited throughout the review, Beebe et al. (2003) fail to elaborate on the conditions of the studies—the subjects, interventions, measurements, and limitations. As a result, their review is more of a theoretical thesis on the centrality of nonlinguistic communication in self- and mutual-regulation between infant-mother and clinician-client dyads, rather than a comprehensive, critical review of empirical literature. In considering Novosad and Thoman (2003) and Beebe et al. (2003), it is possible to infer that breathing may be relevant to psychotherapeutic forms of intersubjectivity.

It is interesting to note the significantly different uses of breathing as a therapeutic intervention presented in this section. Such a range reveals a wide array of the ways breathing has been conceptualized as therapeutic in western psychological studies. Simultaneously, the lack of empirical research on the use of breathing as a therapeutic intervention is significant. Breathing appears to be implied if not present in psychological literature, but appears to rarely be the focal point of empirical, peer reviewed studies. Furthermore, none of the studies reviewed in this section directly examined the use breathing as a therapeutic intervention in the clinician-client psychotherapeutic dyad.

### *Summary*

In light of all the studies presented in this literature review, there is a clear dearth of empirical evidence on how therapists use breathing as a therapeutic intervention. Respiratory psychophysicologists, western medical researchers, and traditional CAM practitioners all acknowledge that there is a correlation between breathing and mental well-being, but the empirical evidence demonstrating that connection remains inconclusive due to small sample sizes, informal study designs, and a confluence of breathing with other interventions in many of the studies. Breathing appears to have more commonly been employed as a component, albeit a significant one, of multi-modal therapeutic interventions in western and traditional medical research, and less often singled out and studied as an intervention in its own right.

Furthermore, there appears to be an emerging discussion in contemporary clinical mental health literature on the acceptability and applicability of CAM practices like conscious breathing in psychotherapy. This conflict speaks to the paradigm clash that Kerr (2002) and Calabrese (2008) point to in their articles. Calabrese (2008) particularly questions the cultural assumptions underlying how many contemporary clinicians are taught to understand psychotherapeutic intervention. Threads of these emerging debates are also echoed in the contemporary psychological literature presented in the final section of this chapter. There appears to be a variety of ways that researchers have conceived of breathing as a therapeutic intervention. That said, research into the subject is minimal, and furthermore, no study has singularly, empirically examined the role of breathing in clinical practice. The following study therefore focuses on how breathing specifically is viewed and used by clinical mental health professionals today—how they conceptualize

and utilize breathing in clinical practice, and from their experiences, what they have found to be most, and least, effective.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to explore the role conscious breathing plays in clinical practice. For this study, conscious breathing was operationalized as the intentional modulation or awareness of one's breathing, encompassing a variety of breathing techniques and reasons for using those techniques. I wanted to gather information on what conscious breathing techniques clinicians are using in practice, how they integrate conscious breathing into their sessions, and what impact they have observed conscious breathing to have had on their clients and the therapeutic relationship. Additionally, I was interested in how clinicians conceptualize their use of conscious breathing as an intervention to use within the context of psychotherapy. The overarching research question was: How do psychotherapists *conceptualize* and *utilize* conscious breathing to enhance clinical practice?

Given that little to no empirical research has been done on the use of conscious breathing in psychotherapy, particularly in the social work literature, I chose a flexible method, qualitative research design. Anastas (1999) points out that flexible method research is typically used at formative stages of research on a given topic, so a study design conducive to exploratory research aiming to capture clinicians' experiences using conscious breathing in practice was most appropriate for this topic and this time. In-depth, semi-structured interviews were conducted with sixteen clinicians who identified

themselves as using conscious breathing in their practices. Findings were then analyzed qualitatively.

### *Subject Selection*

To get a full picture of how breathing is used in psychotherapy, I used a purposive, non-probability convenience sample of sixteen experienced psychotherapists. The target sample size was between twelve and fifteen participants. To ensure that subjects had a foundation of practice experience from which to reflect on for the purposes of this study, participants were required to have a Master's or doctorate level education, at least two years of clinical practice experience, and an interest in using conscious breathing in psychotherapy to be eligible for the study. Though all participants identified as practicing psychotherapy, their professional identities ranged from social workers (MSW's), marriage and family therapists (MFT's), psychiatrists (MD's), and psychologists (PhD's). As part of the inclusion criteria, participants had to identify themselves as being interested in using, or having used "conscious breathing" in their practice, and were given a definition of how conscious breathing was defined for the purposes of this study.

To recruit participants I used a snowball sampling technique. I made my initial contact to potential subjects either via mass email, or direct cold calls. The flier and letter both explained the purpose and nature of the study and asked potential participants to contact me if they were interested. I used both documents because some people may be more likely to read a personal email, whereas others would be more likely to read a succinct flier. I screened all participants either via email or voicemail prior to meeting.

At the start of the recruitment period I sent mass emails to three listservs of San Francisco Bay Area psychotherapists: the San Francisco Psychological Association listserv; the Smith College School for Social Work Alumni listserv; and San Francisco's Department of Public Health (SFDPH), Community and Behavioral Health Services (CBHS) listserv of mental health professionals. I also sent emails to prominent San Francisco counseling centers, asking their administrators to forward the recruitment email to staff, such as: University of California, San Francisco's Osher Center for Integrative Medicine; The Golden Gate Integral Counseling Center; and New Perspectives Center for Counseling. In my second wave of recruitment I focused on making direct cold calls to therapists, using directories of clinicians who were affiliated with mind-body therapy organizations and clinics. I left individualized voice messages directly for clinicians at the clinics I had previously emailed (see above), and also for Bay Area clinicians listed on The Hakomi Institute website, The Sensorimotor Psychotherapy Institute website, The Vipassana Therapists Directory, and the SFDPH CBHS directory of psychotherapists.

Though it is difficult to estimate the exact number of clinicians reached, most likely over 200 San Francisco psychotherapists were contacted during the recruitment process. Over 20 clinicians responded within the first three weeks of recruitment, and more continued to respond over the course of the data collection period. I arranged interviews with participants on a first come first serve basis, and ended up conducting one additional interview due to scheduling conflicts. Seventeen interviews total were conducted, however one was disqualified when, in the course of the interview, the participant realized that she did not use conscious breathing in her practice and had no interest in it other than as an adjunct form of treatment for her clients outside of

psychotherapy treatment. Due to the small sample size it was not possible to ensure that the cohort would reflect the ages, races/ethnicities, and religious affiliations represented in the profession. However, efforts were made to recruit a diverse group of participants by recruiting clinicians in both the private and public sectors and from different professional training backgrounds. The characteristics of the research participants will be discussed in more detail in the Findings chapter.

### *Data Collection*

The Human Subjects Review Board of the Smith College School for Social Work approved this research project in the Winter of 2009 (see Appendix A). At the start of each interview, I reviewed the informed consent letter with the participant. The informed consent (see Appendix B) describes the study and the interview process, explains the risks and benefits of participating, and outlines matters of confidentiality. Participants and I both signed the letter before the interviews began. Participants were offered a copy for their own records. Before the interview, participants also filled out a demographics form with information that was relevant to the study topic (see Appendix C).

The method of data collection was open-ended, semi-structured interviews. Due to the nature of the research topic, all interviews were conducted in-person at a location convenient to the participant, which was most often the clinician's office space. Interview questions revolved around the specific conscious breathing interventions clinicians use in session, as well as how clinicians have observed conscious breathing to impact the therapy and the therapeutic relationship (see Appendix C for a complete list of interview questions). The length of interviews ranged between 40 and 75 minutes, depending on the participants' availability and wishes to share additional information. During the



interviews I also took additional notes with paper and pen, and wrote minimal reflections on the interview and what was said. I recorded all interviews using a Belkin iPod Mp4 Recorder, and personally transcribed all sixteen interviews at a later date using the ExpressScribe application. At the time of transcription all identifying information was deleted and participants were reassigned new identifiers.

### *Data Analysis*

John Seidel's 1998 description of a qualitative data analysis (QDA) process he calls *Noticing, Collecting, and Thinking* can be used to describe the QDA process of this study. That is, as I collected data in the field I began to notice common themes in what participants said, as well as some of the ways many of the questions on my interview guide were related. In subsequent interviews, when participants referred to these emerging themes either in agreement or in disagreement with them, I asked more specific questions on their ideas and asked for clinical examples. Once the data collection was complete, I reviewed the transcripts and then sorted the information by grouping answers to questions asked in the interview together (e.g. how clinicians introduce conscious breathing interventions to clients, contraindications for using a conscious breathing intervention, etc.).

To help analyze themes and patterns, as well as conflicting data and non-significant findings, I sorted the data in a Microsoft Excel spreadsheet according to interview questions and major themes. Themes were listed on one axis of the spreadsheet and on the other were there individual participants (whose information was disguised to be in accordance with confidentiality parameters). Some common themes included: the use of conscious breathing to help a client into the present moment, the benefits of using

conscious breathing for the therapeutic relationship, and the capacity for conscious breathing exercises to be very intimate and evocative for clients.

As I sorted the data I continued to reflect on it, and then went back into the spreadsheet and sorted out the sub-categories of data within question groupings. Through the process of writing up the findings, I continually honed in on and reevaluated the themes and dissimilarities, and the “patterns among the patterns,” which are presented in the following chapter (Seidel, 1998, p. 8). In that chapter, quotes were selected to express the nuances of the study findings and to better flesh out various themes or ideas. Data were also compared to literature cited in the second chapter of this thesis to contextualize the findings.

One limitation of this study is that my personal bias towards using conscious breathing in psychotherapy could have influenced the data analysis. Additionally, my personal interactions with participants could have also influenced my interpretations of the data. To minimize this, I made a concerted effort to exercise reflexivity throughout the data collection and analysis processes. Additionally, due to the small sample size and the small geographic area sampled, the study findings are not effectively generalizable. The information shared, however, does capture clinicians’ experiences with and thoughts around using conscious breathing in psychotherapy, and could inform future research on the topic.

## CHAPTER IV

### FINDINGS

The purpose of this qualitative study was to explore how psychotherapists use and conceptualize the use of conscious breathing in clinical practice. For the purposes of this study, the term conscious breathing is defined as the intentional modulation of or awareness of one's breathing. Research on both traditional Complimentary and Alternative Medical (CAM) practices and respiratory psychophysiology suggest that there is a correlation between breathing and mental well-being, but the empirical evidence demonstrating that connection remains inconclusive due to small sample sizes, often informal research designs, and the confluence of breathing with other interventions in many of the studies. However, even though research into the subject is minimal, the literature reveals a multitude of ways that clinicians have used conscious breathing as a therapeutic intervention. This study investigates the ways psychotherapists use and conceptualize using conscious breathing in clinical practice. Secondly, this study explores clinicians' intentions behind the techniques they use, and looks at some of the ways psychotherapists see conscious breathing interventions to be impacting treatment.

#### *Demographics Summary of Study Sample*

Sixteen clinicians participated in the study who self-identified as practicing psychotherapy, including three men and thirteen women. The known ages of participants ranged from twenty-years to sixty-five-years, and the average age of participants was 45

years. Three participants chose not to disclose their age. All participants held at least a Master's level degree, including ten Marriage and Family Therapists (MFTs), four Master's in Social Work (MSWs), one Doctorate of Psychology (PhD), and one Doctor of Psychiatry (MD). Six of the ten MFTs were licensed to practice psychotherapy in the State of California, while the other four were in internships pursuing their hours for licensure; all four MSWs were also licensed to practice in California. The average number of years practicing psychotherapy was 14.5, ranging from one year to 38 years. Five clinicians had practiced seven years or less, eight clinicians had practiced between ten and 19 years, and three had practiced between 37 and 38 years. All clinicians were practicing in the San Francisco Bay Area at the time of the study interview in either a private practice setting (n=8), a public mental health setting (n=4), or concurrently in both public and private settings (n=4).

Racially, participants identified as Caucasian (n=11), Asian (n=2), Hispanic-American (n=1), and two declined to answer. Participants were also asked about their religious and spiritual orientation. One clinician identified as Catholic, one as Atheist, and one reported "none." The other thirteen identified as "spiritual" drawing upon a mix of influences: Catholicism (n=1), Christianity (n=1), Buddhism (n=3), Judaism (n=2), Paganism/ Wicca (n=1), meditation (n=4), and belief in a higher power (n=2).

All participants reported having received or receiving some type of ongoing, professional, post-graduate psychotherapy training that focused in part on conscious breathing. The trainings ranged in length, most commonly lasting between one and three years at institutions: The Hakomi Institute of California (n=4), The Sensori-motor Psychotherapy Institute in Berkeley, CA (n=4), Somatic Experiencing® (n=2),

Psychophysical Therapy Professional Training in Somatic Resourcing in Oregon (n=2), Dialectical Behavioral Therapy sponsored by the San Francisco Community Mental Health (n=1), and Continuum in San Francisco, California. Participants also reported receiving trainings related to the study topic through clinical post-graduate internship programs, including trainings on mindfulness and somatic-psychotherapy (n=5). One participant received a one-year Integrative Medicine fellowship. Participants also reported receiving relevant, non-psychotherapy-based professional trainings: Yoga Teacher Certification (n=1), National Certification in Massage Therapy (n=1), coursework in Acupuncture (n=1), and Cranio-sacral Therapy Certification (n=1).

Twelve participants also said they have pursued trainings and workshops on an ongoing basis for many years for personal practices that incorporate breathing as a central component, including meditation, mindfulness, yoga, tai chi, and biofeedback.

### *Theoretical Orientation*

Most participants identified as having an eclectic theoretical orientation. Many made comments like that they practice “whatever works,” and that they generally “tailor the approach to the client.” That said, the majority of participants (n=11) reported having a somatic- or body-centered approach to their practice. One participant said, “I just don't question that the body really matters.” Half of participants identified as having a psychodynamic theoretical orientation. Half also reported having a cognitive-behavioral and specifically a mindfulness-based cognitive-behavioral therapy (MBCT) theoretical orientation. Many of these therapists also noted the centrality of MBCT to their practice. One therapist reported that his practice is “very much about using the present moment as the engine of therapy.”

Other common theoretical orientations mentioned by participants included Dialectic Behavioral Therapy (n=4), psychoanalytic (n=4), object relations (n=3), self psychology (n=3), feminist psychology (n=3), attachment theory (n=3), and experiential (n=3). Though many may consider somatic psychotherapy and even MBCT to be experiential modalities, only three participants specifically identified as having an experiential orientation to the way they practice. One experientially oriented participant said, “I help them in a really embodied way... so when they walk out the door it’s a felt sense, it’s not just a cognitive piece—although there is a cognition that goes with it.”

The less common theoretical orientations cited by participants were transpersonal psychology (n=2), integration of spirituality (n=2), family therapy (n=1), bio-psycho-social orientation (n=2), and shamanic practices (n=1).

The subsequent study findings are organized by the main topics covered in the interviews. The first section presents how therapists conceptualize the role of conscious breathing in psychotherapy. The second section covers the ways clinicians use conscious breathing in psychotherapy: what techniques they use, how they introduce conscious breathing into therapy and when, and with whom they chose to use conscious breathing techniques. Though not the emphasis of this study, the final section briefly presents how clinicians’ said they use conscious breathing for themselves in psychotherapy.

#### *How Therapists Conceptualize the Role of Conscious Breathing in Psychotherapy*

The four main ways that participants conceptualized the way that conscious breathing operates in psychotherapy are: (1) as a way for people to “resource themselves,” (2) as a way of relating to a person holistically, or being concerned with more than only the client’s emotional state but also their physical state, (3) as a means of

cultivating present-awareness focus and mindfulness, (4) as a way of accessing information and traumas stored in the body, and (5) as a means of mutual regulation. Every participant shared at least one way they conceptualize their use of conscious breathing in psychotherapy, and most of the clinicians shared more than one way.

Underlying all of the conceptualizations that participants shared, however, is the idea that the mind and body, or the physiological and the emotional, are interconnected. Some clinicians cited research as informing their understanding of how to use conscious breathing. One clinician explained how she understands the mind-body relationship to manifest through the use of conscious breathing. She stated:

You know when the heart is really open, present, relaxed, and safe, it's getting more oxygen. So restriction and tension kind of keep the oxygen out. And the relaxation allows oxygen [to] flow through the whole body more. And so ... we're not thinking about, "oh my heart muscle relaxed and it's sort of more open, and getting more oxygen, more squishy, more full of blood, and flowing more." We don't think of it that way. We probably think, "oh emotionally I feel safer, I feel, you know, more content, I feel love." We feel those. We identify it that way. But it's got this whole other parallel and breathing invites more oxygen in, and kinda moves to that more open-relaxation-blood-flowing-place. So there's that whole physiological level that's there, but you don't necessarily explicitly talk about that. But it's really profound, you know, the oxygen's relationship to defenses and tension versus openness, relaxation, and health.

Despite the universal theme of the mind and body being related and applicable for use in psychotherapy, each of the four following conceptions have significantly different, nuanced ways they can manifest in the context of psychotherapy.

#### *A Way for People to "Resource" Themselves*

The most common way participants reported conceptualizing conscious breathing as being useful in psychotherapy was that it can be a "resource" in an of itself, or as many participants said, a way for people to "resource themselves." The vast majority (n=13)

talked about using conscious breathing in this way. Most participants also spoke about their belief in the innate ability of the body to heal itself, and talked about breathing as being a way for people to “access their natural healing power.” On the topic of conscious breathing, one participant said, “I think that there’s just very potent ways of accessing people’s innate ability to heal themselves. And so in terms of using them [conscious breathing techniques] as part of a treatment plan—absolutely, yes.” Clinicians also spoke about constantly looking out for internal resources to build up in their clients, and that by teaching breathing exercises and how to breathe deeply they are helping clients build a valuable resource within themselves.”

One common way participants talked about how conscious breathing can be a resource is that it is a “means of modulation” and “physiological autonomic regulation,” or in other words, it can help clients “regulate” their emotions. One clinician said, “it’s like learning how to soothe themselves ... a way to calm themselves down [which is helpful because] the inability to do that is the hallmark of what their problems are.” Many clinicians noted that teaching conscious breathing techniques helps give people a sense of control. One clinician stated:

I think of breath as being one of our basic biological functions that we actually have some control over, that we can modulate. ... Our breath changes with our states, and I think it’s really helpful for clients to be able to learn how they can control their breathing to try to change their experience.

Several participants identified two similar reasons why they like teaching conscious breathing as a resource: it is a “simple” technique, and it is “accessible” in that people can do the techniques at anytime, anywhere. One clinician said:



Just realizing that you can change your breath, and change your mood [is empowering]. You can change your posture and open up your breath. You can just, have much more access to changing your present moment emotional state.

A second way participants said that conscious breathing can be a resource is that it can help people learn to be in their bodies and tolerate difficult emotions without dissociating. For instance, one therapist said:

I ask them to, instead of reacting to their feelings, to just experience them as a wave. And use the breath to help you with that. It's the difference between being a cork in the ocean, and being someone who's able to say, "Geez, right now I feel like a cork in the ocean." ... And the breath really helps with that.

Another clinician said that being able to focus on one's breathing, as an alternative to dissociating, could be a relief for some clients but that doing so requires developing breathing as a skill.

A different participant talked about how conscious breathing could help people cultivate a sense of "self holding" or "attunement to self," such that internal attunement "replicates early attachment attunement things, and helps people start to begin to hold themselves in a way they might not necessarily have been held." Similarly, several therapists said that conscious breathing interventions are often "grounding" for people. One participant said she believes that, "because breathing is such a basic function we don't think about [it, so] directing a person's attention to it I think really increases a sense of groundedness [*sic*]."

Along the same lines of tolerating one's emotional state, three therapists talked about using conscious breathing as a way of practicing letting go, trusting the body, and not having to change one's state. One clinician spoke about the concept of "being

breathed” in which the client lets the breathing happen naturally rather than being obliged to make it happen. The same clinician said:

There is so much in there—that when we think that we need to be the do-er, and that we need to control, and that we need to stay alive, or different ideas that bring anxiety. But we are breathed regardless of anything that happens externally. Trust that it happens—all our bodily functions. And breathing is one that we can track.

Finally, many participants talked about how they see conscious breathing as being a resource for calming, relaxing, and bringing about a sense of wellbeing and wholeness between mind and body. One clinician said, “you can use the mind to relax the body, but you can also relax the body to relax the mind. . . . All of that is becoming so palpable to me now. You can’t have a tense mind and a relaxed body at the same time.”

Two of the sixteen participants, however, specifically said that they believed that using conscious breathing to “relax,” “calm down,” or change a person’s emotional state in psychotherapy was inappropriate. One of the two clinicians said, “I have no intention of calming people down. That’s not my job. That’s not my purpose.” Another participant, who identifies as using breathing in therapy predominantly as a means of facilitating mindfulness, added:

The goal is not to be relaxed. [The] goal is to minimize suffering [and] maximize tolerance. And sometimes it’s like “oh, that was really relaxing,” but the goal isn’t so much to feel relaxed . . . the goal is to be with whatever is.

Again, these clinicians seemed to argue that while it is appropriate to use conscious breathing as a means for tolerating a difficult experience or emotional state, using it to “calm,” or “change” a person’s experience is not necessarily the goal of therapy.

### *A Way of Relating to People Holistically*

A second way clinicians reported that they conceptualize using conscious breathing in psychotherapy is that it is a way of relating to people “holistically,” meaning that they see it as a way of relating to or being concerned with the whole person rather than just one part of the person. Participants said that conscious breathing helps them relate to their clients holistically because through the intervention they attend to the body’s manifestations as well as a client’s cognitions. Half of the participants (n=8) spoke in some way about this theme, as well as the value of relating to a person “totally.”

A participant who has been in the field for several decades said of her early training,

People talked about the total person, [but] no one related to the total person. You related to their problem basically, and that’s important to have goals with people, I definitely agree to that. But how you help them manifest what they’re wanting is the healing part I think.

Other clinicians seemed to agree with this participant. Participants also noted that clients seem to feel more “met” by the therapist when the therapist involves body-oriented interventions in treatment. Another clinician said that when she uses conscious breathing in therapy, the people she works with seem to “feel like you [the therapist] really genuinely concerned about them. They feel like you [are] totally with them.”

Other therapists said that by relating to a person holistically seems to strengthen the sense of connection and attunement between themselves and their client. Likewise, participants reported that attuning to the physical and emotional states of a person also strengthens the sense of attachment and connection they feel between themselves and their clients. One participant reflected on an instance when he asked his client to check in with his (the client’s) breathing:

I was literally, in a deep way saying, “what’s going on for you?” But it wasn’t just a theory, it was a physical thing. ... It cut right to the present moment of what was happening physiologically, which was both unarguable, and also very intimate in a friendly way.

Several clinicians also said that they thought the increased sense of attunement resulted from tuning in to the client’s physical body in addition to the client’s feelings. One participant said she thinks that she “communicates presence” not only by sitting with and listening to her clients but by “witnessing the breath” of her clients as well.

#### *A Way of Cultivating Present-Focus Awareness*

More than half of the participants (n=9) spoke explicitly about how they conceptualize conscious breathing as being a tool for facilitating present-focus awareness, mindfulness, and self-awareness in therapy. One participant described mindfulness as non-judgmental attentiveness to the present moment. Several clinicians said they believe that conscious breathing is one of the central tools they use for facilitating mindfulness because, as one participant said, “the breath is like an anchor to the present moment.” The clinicians who talked about using conscious breathing in this way generally seemed to believe that through mindfulness, people are better able to “study their own responses to things,” and observe “how they are organized around their own experiences.” Furthermore, they tended to believe that “healing happens in a state of mindfulness.”

Several participants also noted that increasing a client’s present-focus in therapy adds to the sense of the “holding environment.” Three participants said they experienced a sense of “re-mothering” or “re-parenting” when they engaged in conscious breathing interventions. One clinician explained, “I say ‘re-mothering’ but it could be anything: just

nurturing, caring, just being completely, unconditionally present with whatever's arising for the person—those are all aspects of the holding environment.”

*A Way of Accessing Information Stored in the Body*

More than one-third of participants (n=6) also explicitly said they see conscious breathing as being a means for accessing “information stored in the body.” Several of these clinicians seemed to agree that traumas and experiences people go through are “held in the body.” A few clinicians said that looking at “metaphors” of how “psychology is represented in the breath” could bring a lot of “material” to explore into the session. For example, one participant said she uses her clients’ moment-to-moment experience of their breathing as a jumping-board to explore with them themes like, “are they able to take in nourishment fully all the way in? As much as they want? And do it as slowly as they want? Or is there [a sense of] urgency to it? You can look at all those.” The same participant added, and a handful of other participants concurred, that “having a new experience of breath can rebuild a new belief system,” in the same sense that having a new experience of human relationship in therapy can act like a corrective emotional experience.

Additionally, clinicians said that using breathing is one way for many people to access emotions and experiences that they may not be able to access through talking. One clinician said, “People have a hard time identifying emotions. ... I think if you bring people into their body, there's a reservoir of information for them they typically don't have access to ... so the breathing is really a gateway to get in there.”

### *A Way of Mirroring and a Form of Mutual Regulation*

A less common yet significant way that participants said they conceptualize conscious breathing impacting psychotherapy treatment is as a form of mutual regulation. A handful of participants (n=4) who had attended similar somatic psychotherapy trainings said that when they bring awareness to their own breathing that their clients tend to start regulating their breathing as well. Participants referred to this phenomenon as “limbic resonance,” or a function of the “mirror neurons.” One clinician explained the “limbic system” as follows:

The basic idea is that, as mammals, we have a limbic system ... and it resonates with other mammals. ... And a lot of that stuff happens of course in early development, but it continues to happen throughout our lives. ... So when I'm calming myself down, then the effect is that the client also starts to calm down. ... It's not a conscious process—it's the limbic system doing its thing.

Other clinicians referred to the intersubjective element of this. One participant stated: “keeping my own system regulated and tending to my own system, there tends to be natural shifts that occur [in the client] that aren't necessarily explicit.” Two participants said that they thought it was soothing for clients when they mirrored their clients' breathing. One therapist stated:

[To be] mirrored in such a basic way, and even if they don't even know they are being mirrored or been thinking about it. ... It's like going back into the womb or going back into early experiences of attunement and bonding. It's just very basic. It's our basic function.

### *The Ways Clinicians Use Conscious Breathing in Psychotherapy*

Complimentary to the above section on how therapists conceptualize their uses of conscious breathing in psychotherapy, the next portion of this chapter presents more tangible findings around *what* conscious breathing techniques participants said they use

in practice, *when* they use these interventions, and with *whom*. The findings pertaining to these questions are presented according to the following sub-sections: (1) conscious breathing techniques and therapeutic interventions, (2) introducing conscious breathing into treatment, (3) how and when therapists introduce conscious breathing, (4) with whom therapists use conscious breathing techniques, and (5) therapists' uses of conscious breathing for themselves in clinical practice.

### *Conscious Breathing Techniques and Therapeutic Interventions*

Though the emphasis of this section is on what clinicians do, the intentions behind why they are using a particular technique impacts how they go about implementing it. Therefore, the intentions underlying some of these techniques will also be briefly discussed in the following section. Intentionality is also noteworthy because it could be a determining factor in the outcome of a particular explicit conscious breathing technique. That is, at times participants cited using the same breathing techniques for different intended outcomes. Vice-versa, in other instances several participants each said they used a different conscious breathing technique for the same common purpose.

In spite of the instances of overlap stated above, the data show five, fairly distinctive ways psychotherapists use conscious breathing techniques as explicit therapeutic interventions. They include (1) encouraging the client to breathe, (2) "contacting" breathing patterns, (3) teaching mindfulness breathing, (4) teaching structured breathing exercises, and (5) "matching" or "mirroring" the client's breathing. Due to the different levels and types of advanced trainings participants had received, some clinicians seemed to use common terms to describe their conscious breathing techniques whereas other participants described a similar technique but did not use the

same language. The terms that seemed most commonly associated with various techniques are used in the sub-section headings and defined below.

*Encouraging the client to breathe.* The most common way therapists reported using conscious breathing as an intervention is by encouraging their clients to breathe. Participants reported four main ways they encourage their clients to breathe. One is that clinicians will tell their clients to breathe. “I’ll say to someone—‘breathe.’ Like I can see them holding their breath. And I’ll say to them ‘you can breathe now.’” Secondly, participants said they model a breath, as though they are giving “a cue” to their clients to breathe.

So, there’s ways that you don’t necessarily explicitly say, “oh, you just breathed more deeply right there.” You know, you might just kind of parallel—[sighs]—breathe with it. So its not always words, it might be just taking a deep breath. And for some reason, other people respond and take a breath when you take a breath.

Many therapists demonstrated their “cue” breath in the study interview. Generally, it was a breath that the client could hear from across the room and see visibly in the expansion and contraction of the therapists’ body. A third way participants said they encourage their clients to breathe is by asking their clients to make a sound of some sort as they exhale. Each of the four clinicians who said that, however, used different sounds and different reasons using those sound. For instance, one clinician said he has had his clients say “om” as a tool for focusing on the breath to facilitate mindfulness. Another therapist said she has asked her clients to make a “sigh” noise when they exhale, which thereby emphasizes and deepens the out-breath.

The fourth way clinicians reported encouraging their clients to breathe was by facilitating guided breathing exercises, which are distinctive from instructional breathing



exercises. Guided breathing exercises as reported by participants use breathing as a central element, and also tend to incorporate visualizations. One clinician shared an example of a guided breathing exercise he might do with a client:

I'll say things like, "so, as you're breathing, maybe start to study how you're responding to the events of the day. How you felt like you were when you came in here. Notice the breath going in and out of your lungs. And really notice yourself in the room. Notice the weight of your body in the chair. ... And focus on your breath again. Just notice it going into your lungs, and out of your lungs. Into your lungs, and out of your lungs."

Participants who reported using guided breathing commonly reported that they will use guided breathing in this way particularly with "lower functioning clients," clients who have "more mood dysregulation," and clients who are "not used to practicing breathing awareness." One clinician said that a guided breathing exercise of this sort typically lasts between one and three minutes for her in a given session, "depending on how skilled or unskilled the person is in being able to focus on their breath."

*"Contacting" breathing patterns.* Though not all therapists used the term, another way participants said they commonly use conscious breathing as an intervention is by "contacting" a client's breathing patterns. Some participants with similar trainings used the term making "contact" to refer to the instances when they observe a particular breathing pattern or breathing occurrence, and then possibly commenting on that pattern or occurrence out loud to the client. For example, a client might restrict their breathing, or open up their chest in such that they are breathing deeper. As a means of contacting these occurrences, participants reported they might say, for example, "that was a nice breath," "oh, a sigh—ah," "oh, a breath out," "wow, you just kinda stopped breathing there," "oh, you relaxed a little bit here," or "there's a little more ease in your chest."

Participants identified three main intentions for “contacting” a client’s breathing. A few participants reported that “contacting” a client’s breathing can be like a gateway for working more deeply with the body in psychotherapy. One participant articulated:

When you’re on the mark—you’re noticing something that the person’s experiencing ... I think of it as an iceberg—the tip of the iceberg is out of the water, but there’s a whole deeper thing underneath. So when you’re on the mark, and you’re naming kind of that tip of the iceberg, then it can drop down into what’s beneath. If it’s sort of irrelevant to the core thing that’s happening to them, it can kinda take them out of their experience.

Most clinicians who reported using this technique had been trained in a similar program as the therapist who made the statement above (n=4). One of these participants said that the client’s investment in experiencing and “really feeling” the constriction or the opening of their breathing is an essential part of this intervention. Clinicians who reported using this technique often said they believed that a cognitive learning emerges from the intervention, but that because the process is experiential-based, “it’s much more potent and they own it.” Other clinicians reported that they like to “contact” a client’s breathing to support the client in seeing their “natural tendency to care for themselves through a breath.” One clinician said that “contacting” the breath teaches clients the skill of becoming more aware of “the strength and the power of whatever shifted and moved [in connection with the breath]. ... Then maybe later [the client] can internalize it and notice sighs [on their own]. So when they sigh and exhale during their daily life, it can give a clue that something is going on.”

*Teaching mindfulness breathing.* The third explicit conscious breathing technique clinicians commonly reported using was teaching mindfulness breathing exercises. The data revealed a variety of ways clinicians teach mindfulness breathing exercises in

psychotherapy, ranging from very basic and brief, to more complex and taking a longer amount of time.

Only two clinicians reported teaching and practicing mindfulness breathing with their clients on a regular basis. Both of these practitioners were trained in Dialectical Behavioral Therapy (DBT), and both were in practice in public mental health settings full time. These clinicians reported that they trained clients how to focus on their breathing, and then practiced together with clients regularly for a few minutes in each session. One of the therapists said he has referred to a book called *The Miracle of Mindfulness* by Buddhist monk Thich Nhat Hanh to help in the teaching process. This clinician reported that he may read certain instructions or techniques out loud to clients, and sometimes gives the first chapter of the book to a client for them to read at home.

Both therapists reported that they regularly conduct check-ins with clients following each mindfulness-breathing practice. Therapists who worked in private practice settings also said that they check-in with clients in regards to their conscious breathing experiences in session, but did not report practicing mindfulness-breathing with clients on a regular basis. All of the therapists who talked about checking-in with clients after a mindfulness-breathing practice reported that the practice often brings up significant material for clients that they can then process in session. One clinician said of the mindfulness-breathing practice,

It always offers information—whether it was hard for the person to focus or bring themselves back [to the breath], or— sometimes the check-in will be “it was stupid and I didn’t feel like doing it today so I didn’t and I sat there and sang myself a song.” I [said], “oh, ok, it sounds like you’re coming in a willful space today, so let’s talk about willfulness.”

Clinicians most often said that the check-in is about “getting [clients] to explore their experience,” getting them to “try to be open in terms of what their experience is... [and] to validate that experience.” Several clinicians said that it is important to validate a client’s experience with mindfulness-breathing practices, whatever the experience may be. Another clinician said that he sees the check-in as an opportunity to practice being non-judgmental.

If we can observe the emotions in our body, and just describe them and maybe say, “oh, there’s that worry thought,” “oh there’s that tightness in my gut,” or, “huh—such anxiety, wow!” And so, I bring them through that doing it non-judgmentally.

Several therapists, some of whom had taken the same training courses, said they teaching mindfulness indirectly by reminding their clients to notice their breathing, throughout the therapy session. One clinician explained, “I do a lot of going back and forth. ... I weave through the three: thinking, emoting, sensation. ‘As you’re feeling this, what are you thinking? And as you’re thinking this, what are you experiencing?’” Therapists that practice this technique commonly noted that it trains the client to know how to check-in with “what is happening right now,” which ultimately leads to “mindfulness.” Therapists also commonly said that as clients learn this technique, the breath becomes like an “odometer,” “self-assessment tool,” or “litmus test” for the client to observe how they are doing.

Another way participants reported teaching mindfulness breathing in psychotherapy was by giving simple suggestions to clients, asking them to bring awareness to their breathing. Some of the ways clinicians worded these suggestions

included: “notice your breath,” “notice the natural rhythm of your breathing,” and “breathe ... what did you notice?”

*Teaching structured breathing exercises.* The fourth way therapists said they use conscious breathing explicitly with clients is by teaching structured breathing exercises. That said, a smaller number of participants said that structured breathing does not have a place in psychotherapy and they specifically do not do any structured breathing exercises because, as discussed in the first section of this paper, they believe that structured exercises would not be congruent with the goals of therapy. Three out of four clinicians who held Social Work degrees reported using structured breathing techniques, where as a smaller percentage of clinicians with Marriage and Family Therapy degrees said they used them.

The most common structured exercise clinicians reported using involved having their clients count as the client engaged in the conscious breathing. Participants shared a variety of different ways they use counting in therapy. Only two clinicians shared the same counting exercise, despite the fact that many participants who reported using counting had had similar trainings. Clinicians by-and-large reported liking these techniques because, as one therapist said:

It’s really easy to remember, you can do it anytime, and ... it doesn’t matter when you do it, or how you do it—you can do it sitting down you can do it standing up, you can kind of do it in meetings when you don’t want people to know—And it still has benefit for people.

One of the four counting techniques that several different participants reported using was “four-count breathing.” That is, “breathing in for four seconds, holding for four, releasing, breathing out for four seconds. Four seconds while breathing in, four

holding, four releasing, four waiting. And just kinda continuing that.” Another clinician reported teaching clients an exercise called “four-seven-eight breathing,” which they attributed to Dr. Andrew Weil. The participant described Weil’s technique as follows: “on a slow count, the inhalation is on a slow count of four, you hold for a slow count of seven, and you exhale for a slow count of eight.”

Several participants who said they teach structured breathing exercises emphasized working with the “exhale,” or the “out-breath,” more often than working with the inhale. One therapist said they teach their clients to focus on the out-breath by counting its duration.

It’s very simple, just asking the person to ... watch the breathing come in, cause the breathing will—cause you’ll naturally want to take a breath. But when the breath wants to go out, instead of—not in anyway forcing it of course, but just letting the breath go out—to just count on the out breath.

This clinician reported that this technique is effective because, “when the out-breath is emphasized, the person’s empathetic nervous system seems to get activated, which causes a relaxation response.”

There were three structured breathing exercises that only one participant each reported using. One participant, who was a Certified Yoga Teacher in addition to having a LCSW, said she teaches a basic three-part yoga *pranayama* breathing exercise to her clients. She did not go into detail describing what the three-part breath looks like, but said she teaches clients to become aware of their breathing by leading the exercise and simultaneously having clients put their hands or “a small thin book on their bellies to see if they can see the book rise and fall.” One other participant, who also credentialed as a LCSW, reported that she uses a relaxation tape in session with clients and listens to the

tape with them during sessions. This therapist said she also gives her clients a copy of the tape to take home to practice. Yet another clinician said she teaches most of her clients “how to breathe,” and “the anatomy of deeper breathing” as part of treatment. Following is an example she gave of how she explains to her clients how to breathe:

“So on the inhale, your chest gets a little bigger and there’s a natural pressure downward into your intestines all the way down to your perineum.” And people often don’t know. . . . So I give them a little anatomy: “your stomach is actually there. And the reason your belly puffs out when you breathe is because your diaphragm, which is here, goes down and there’s nowhere for your belly to go but out. So that’s a good thing, that’s meant to happen.” . . . And [I] help people to breathe sideways, cause the lungs also go to the back so that there’s a full dimension to the breathing. And do it in an experiential way so we’re not just talking about this, but we’re going way slower than I’m describing it to you right now.

Before continuing with the next conscious breathing technique, it is significant enough to note that both participants who said they used mindfulness breathing, and participants who said they used structured breathing exercises reported that they encourage their clients to practice the techniques outside of the therapy room. One clinician estimated that twenty out of fifty of her clients practice some sort of mindfulness-breathing related exercise in their personal lives. Another therapist said, “we talk about it [conscious breathing] as a muscle that you’re building—to be able to come back to your breath. To be able to focus on that, and to breathe.” Another clinician said that he tries to “put my money where my mouth is” by providing a space for clients to practice breathing mindfully in every session, and particularly with the clients who say they are not practicing between sessions. He said, “it’s not an event, and it’s not easy to do. It’s simple, but you must practice it all the time.”

Additionally, most clinicians noted that before engaging in a breathing exercise of any kind—mindfulness-based or structured—they help their clients to “ground themselves” through visualizations and other cues like. For example, “asking the person to go inside,” or having them notice the space immediately around them. For instance, one clinician said, “I ask them to find themselves in their chair. Plant themselves in the room. And then start to notice their breath.”

*“Matching” or “mirroring” the client’s breathing.* The last way participants (n=4) reported using conscious breathing explicitly was by consciously “matching” their own breath with that of their client. One participant who said she uses this technique explained, “I might be attending to my breath, which I do anyway—and then, not exactly matching my breath with theirs, but on some level, [I] attune my breath and their breath.” Most of the clinicians who said they have tried to match their breathing with their clients talked about how it is a very subtle intervention because it functions as a means of “empathic mirroring.” One participant stated:

My sense is that the more you can meet somebody where they are psychodynamically as well as sort of physiologically in the room—it’s probably a helpful thing rather than a hurtful thing. ... I think just to feel in synch with someone because ... in a lot of ways psychotherapy can be non-verbal.

Two participants said that since “there’s so much resonance that happens [in psychotherapy],” the therapist should be focused on regulating their own breathing and staying grounded, rather than mirroring the client’s breathing. Along the same lines, another participant said, “I think if they sense that I’m calmer it helps.”

In summary, this section presented five main ways psychotherapists use conscious breathing as therapeutic interventions. Again, most clinicians cited using several of these



techniques in their practice. Three participants categorized these conscious breathing interventions into two main groups, explained by one of those clinicians as follows:

[First,] there's moving from the top-down to the bottom-up. So there's moving from the body's wisdom, and having that inform our mind. And then there's taking our conscious thought, and actually having that direct what we do with our body. So, they just work differently. So, explicitly inviting someone to use their breathing would be inviting sort of a top-down experience. Whereas, just being with it and allowing it to unfold, and kind of ... naming what's happening, what they're experiencing—that would be inviting the body's wisdom to come out.

### *Introducing Conscious Breathing Into Treatment*

This section presents the findings on the different ways participants said they initially introduce conscious breathing into treatment, and then how they integrate it on an ongoing basis into sessions with clients. The majority of participants reported that how and what they say, as well as the way they choose to introduce conscious breathing, depends on the client. Several clinicians said that “it’s a matter of getting to know the person,” and that “it changes from client to client,” noting that they rarely explain it the same way to any two clients.

Many participants said that they try to introduce conscious breathing concepts and techniques in a way that “aligns with their [clients’] values,” or that it “fit[s] it in with the person’s worldview and belief system so that it’s copasetic.” For instance, several therapists mentioned how a person’s sense of spirituality, religiosity, or atheism can impact how they might go about introducing the conscious breathing. One therapist said that he would “leave the spiritual overtones out for people who are atheist.” A different clinician also noted that religious clientele might feel uncomfortable with the word “yoga,” so she would “use the words ‘breathing techniques’ instead. She said that in a

case like that, therapists “would make it more scientific. ... It wouldn’t need to be a threat to [the client’s] faith.” Along the same lines, another participant said,

If someone has studied yoga for years and is into meditation and has that position coming in ... I would say, “This is a very potent way that we can actually harness our own inner healing energy.” I may couch it more that way. ... But for someone who has absolutely no interest and no experience in this, I become very practical. I say, “Look ... what we know is that even just sitting still for a minute, having a relaxed posture, and doing this breath, can help you.”

Another participant said that she asks her clients about their coping “resources” early on in treatment to find out if they already have a breathing practice of some kind or not.

The vast majority of participants also said that when they introduce conscious breathing into therapy they “never force” or “impose” the activity onto their clients. Rather, most participants said that they like to “offer” or “invite” their clients to try conscious breathing, or “get permission” from to them to move forward with the intervention. The majority of study participants said that they initially start by presenting the idea of trying a conscious breathing technique to their client, and then ask them if they would like to know more about it. For example, one clinician said:

I’ll say, “You know, I learned about this breathing exercise, which can have benefits for your anxiety and just general wellness also. Would you like to hear more about it?” And we talk about how it works. “It’s super easy. Do you want me to show you how to do it?” And then I count with them and do a couple of iterations of the exercise during the session.

A subset of the clinicians who talked about introducing conscious breathing in this way and who had attended the same somatic psychotherapy training, said they approach conscious breathing with the principle of “non-violence.” That is, they said they try to minimize the invasiveness of any intervention by never “ordering” a client to do conscious breathing or saying “this is what I think we should do.” These therapists also

said that it is important to leave space for the clients to decide not to do the exercise, and to decide for themselves whether or not conscious breathing works for them.

Related to the principle of non-violence, many participants talked about being conscious of the pace they take in pursuing conscious breathing exercises in session. One participant said that she is conscientious of creating a safe “holding environment” when she engages her clients in conscious breathing interventions. She said,

The holding environment that I ideally like to create for someone includes not going too fast. So I think any body technique could actually, if you move too fast, it could be experienced as an invasion. ... So just going the right pace for them, tracking myself to make sure I’m actually doing the same thing I’m teaching ... I never doubt that the relationship matters. So how we do things together in the room just gives them another kind of internalized experience for how a relationship can be. So it’s not isolated with a breathing technique.”

Other therapists talked about using conscious breathing similar to any other therapeutic intervention in how they approach it in session with a client. One participant said that when she engages a client in conscious breathing she is “warm and supportive, and [tries] to get people to just feel comfortable and casual. ... I’m not very formal. So it’s not like I’m doing something that’s totally out of the tenor of the session.” Similarly, another therapists said, “I get curious.” Other participants said that they try to “get myself in a state of mindfulness,” and “get myself very calm.”

One participant said she might be more assertive about using a conscious breathing intervention. She said she might say something like, “I know this is a crazy-Berkeley-therapist thing to do, but ... indulge me here for a couple minutes and let’s do this.” The participant reported that after her clients try it, they tend to like it overall. Some therapists also said that they might use self-disclosure when introducing conscious breathing to a client. For example, some said they would say, “I’ve found this helpful for

myself, and I thought you might want to try it.” Or, “some people have found this useful. Doesn’t mean that everybody finds it useful. Sometimes it helps me.”

Participants reported that they explain conscious breathing to varying degrees. Some said that they try to keep the explanation as simple as possible. Others said that they explain the physiological process, and subsequent mental health benefits, in more depth. One participant said that she does not think explicit instructions or explanations are necessary. She added that sometimes the intervention catches her clients “off-guard” sometimes, but said that she did not find that to be a problem in treatment.

Many noted that the level of explanation depended on the needs of the client. One participant said, “for someone who’s in their heads a lot, I might want to give them a map first.” For example, this therapist said he might describe the two parts of the nervous system to clients and gave the following example:

Your sympathetic nervous system is the part of you that will respond to the environment when there is stress. ... [And ] you’ve just been using that a lot cause you felt like you needed to defend yourself, and that’s where you get anxious. Ok. So then there’s another part of you that can produce a relaxation response and we can activate that. So, would you like to do that?

For someone “who’s more a feeling type,” he said he would be more likely to give a quick explanation because the clients “would much rather just do it or feel it,” but that the “feeling type” can also benefit from “the map because it gives them a sense of control and structure [to know] ... what we’re [doing] and why this is being done.”

Participants also reported being discerning about the language and wording they use when they introduce a conscious breathing technique. Most clinicians said they try not to use commanding language. One participant said,

[I] use “-ing” words like “noticing your breathing,” “allowing it to just happen.” So, not commanding, but kind of an inviting or just [using] affirming language ... [I] use words like “breathing in, breathing out,” so the client can take a breath on his own—rather than, “breathe in, breathe out,” which implies the moment when they should be doing the breathing.

Other therapists said that they try to use “simple” language and concepts to their clients because “using a lot of words and jargon—no one’s gonna be impressed by it. ... You wanna keep it basic and not scary.” Another participant, who said he mostly uses mindfulness-based breathing techniques, said that the word “meditation” is off-putting for some people, so he uses the word “breathing” instead, even if what he is doing is basically a meditation exercise. Another therapist said that she tries not to use the word “body” when she’s introducing a conscious breathing intervention because the word can be triggering and make some people feel “uncomfortable.” Rather, this participant said she might invite her clients to go “inside,” or to “notice what happens inside.”

A few participants, particularly those who identified as somatic and experiential therapists, said that they tell their clients in the very first session that they might use breathing interventions over the course of treatment. One therapist said she tells her clients, “I work in several different ways ... and one of the ways is by paying attention to what is happening not just in your [the client’s] thoughts, but in your emotions and in your sensations and in ... your awareness.” Another participant said that introducing conscious breathing at the start of treatment is “the start of familiarizing them [clients] with the concept that it may not be all talking in here—that we may be doing other things beyond talking.”

Finally, the majority of therapists reported that they physically engage in the conscious breathing with their clients in session, depending on the client’s trauma history.

One therapist stated, “if I ask anyone to do anything somatically, I usually do it with them.” Participants talked about a variety of reasons why. Some said that practicing with the client is “like an equalizer in some ways” in that it “keep[s] the playing field level.” Another clinician said, “I want them to feel I’m with them, as opposed to watching them.” This therapist said that in his experience, doing the conscious breathing with clients, and checking-in regularly helps to make the client feel safe. Other participants said that do not do conscious breathing with their clients but that they often engage in some other way, either by demonstrating the technique beforehand, being attentive to the client while they breathe, making eye contact, or counting for the client. The therapists who demonstrate the breathing technique for their clients said they tend to exaggerate their breathing by making a loud sigh, or by visibly expanding and contracting their abdomen and chest. One therapist said that by “breath[ing] extra deeply ... that can help [clients] not feel self-conscious about if they make noise with their nose or whatever.” By in large, therapists said they thought that there are a number of ways they can work with conscious breathing in psychotherapy, and that in practice they work with their clients to find “whatever works” best for the client.

#### *How and When Therapists Introduce Conscious Breathing*

When a clinician introduces breathing interventions seems to vary depending on the clinician, the client, and where they are in the therapy process. For the most part, clinicians talked about letting the timing of the intervention happen “organically” or “naturally.” Several clinicians said that they decide on when to intervene “intuitively,” when they have the “impulse,” or “when it feels like the teaching moment’s proper.” Many participants also explicitly said that if they do not have the impulse, or, “if the

person is doing fine with other interventions, often times [conscious breathing] may not even come up.”

Many therapists said that they “track” their client’s breathing throughout the session as a means for assessing the client and identifying times to intervene. “Tracking,” is a term that many therapists who had attended similar somatic trainings used. They used the term to refer to the process of quietly watching or monitoring their clients’ breathing over the course of a session.

Some therapists said they are more likely to use a conscious breathing intervention when their clients seem highly agitated. Many participants also said, however, that before using any conscious breathing interventions it is important for the therapist to first assess whether or not the client can “tolerate” the intervention.

A handful of other participants reported that they are more likely to use a conscious breathing intervention at the beginning or end of a session. How therapists timed their intervention (intuitively or planned at the beginning or end of a session) did not correspond with whether or not the participant said they used structured- or mindfulness-breathing exercises. Rather, when the intervention happens seems to be more dependent on who the therapist is and how they conceptualize it for treatment. Therapists who conceptualized conscious breathing as a tool for relaxation tend to use conscious breathing interventions at the end of a session. For therapists who viewed conscious breathing as being an evocative intervention, they seemed more likely to engage with it earlier in a session so as to leave time for processing.

A small number of participants said that they weave conscious breathing interventions throughout the sessions. Coincidentally or not, these participants tended to have been in practice for ten or more years.

#### *With Whom Therapists Use Conscious Breathing Techniques*

The majority of participants said they thought that most people could benefit from conscious breathing interventions, and particularly clients struggling with anxiety. One clinician said, “Everyone benefits from being more embodied. ... From me, being a very functional person, to the least functional person—it’s beneficial across the board.” Another clinician said, “I think its worth the effort for all the people I see ... ‘cause you never can tell what impact introducing paying attention to the breath will have.” Many of these participants spoke to the versatility and flexibility of conscious breathing interventions. One therapist said,

It’s a very flexible thing, and I find that patients can go as far with it as they want to ... or not, and it’s still kind of ok. And that’s what I like about it. And it’s very non-judgmental. ... They can incorporate it into their daily routine, or not, or they can do it as needed kind of a thing. Very flexible. No adverse effects.

That said, participants often reported that some clients seemed to have had more success with the intervention than others. Participants also said that the intervention seemed to be “more foreign” to some clients. No clinicians, however, reported any negative effects from trying a conscious breathing exercise with clients.

The most common contraindications reported by participants were if the client would not want to do conscious breathing, if it were to increase a client’s symptoms, if it would cause the client to dissociate, or if it were to make the client “feel bad.” To this end, one clinician said they would be unlikely to do conscious breathing with a client in



an acute stage of anxiety “because it might just stress them out even more if they can’t do it, and I don’t want to set people up for failure.”

Almost all participants said that they are cautious when using conscious breathing interventions with clients who have experienced trauma, largely because the intervention can be “evocative” and “dysregulating for some people.” The majority of clinicians said that engaging with a client in conscious breathing has evoked a sense of “intimacy” and “vulnerability” between themselves and their clients. One participant said,

You’re going inside the person together, and that’s extremely intimate. And that’s why it really needs to be delicately followed, and done with such a respectful—to follow the client and not lead the client, because you are in their inner most soft, vulnerable place.

To this effect, participants said that it is important to have had ample training on working with trauma before engaging in conscious breathing interventions. They also said that they tend to wait until a certain level of trust has been established between themselves and their clients. Thirdly, many participants said that they go about the intervention “slowly” and “gently,” and always give their client control of the intervention and respect the choice of whether or not the client wants to do it. One participant recommended,

I would wait until a PTSD [Posttraumatic Stress Disorder] client feels comfortable with me before I start asking them to do stuff like that. Maybe just do simple grounding stuff first. And be checking in about how comfortable they feel as we go along. And then maybe introduce them the breath[ing] with their eyes open, letting them hold on to as much control as they need and free to come out of it. And stop it at any time they want.

In terms of cultural accessibility, most clinicians said that culture is not a factor.

Of the three participants who identified as people of color however, two said that culture could be a factor in how a client may or may not respond to a conscious breathing intervention. One clinician who identified as bi-racial Caucasian and Hispanic said that

conscious breathing interventions are not accessible to Hispanic clients born outside of the United States. She said, “it’s too offensive to the culture to penetrate the body that way, whereas Americans don’t feel penetrated that way cause they have a different sense of boundary.” Another participant, who identified as Chinese, said she found Chinese families to be particularly receptive to using conscious breathing in therapy because they are “already teaching [it to] their children.” The same clinician said that she thought her African-American clients responded better to conscious breathing interventions when she used a relaxation tape.

Several participants said that conscious breathing interventions and “the conceptual idea[s]” behind them tend to be more accessible to the higher cognitive functioning clients. A few clinicians also reported that they are less likely to use conscious breathing interventions with highly personality-disordered clients, particularly those with a diagnosis of narcissism because, as one participant said, “any indication to a narcissist that they are weak, or not ok, or need help is a big blow.” Another therapist said she would not recommend using conscious breathing techniques with a client who is intoxicated. Several clinicians said they would also be wary of using conscious breathing techniques with a client who is body-conscious because it may make the client feel “too visible” or exposed, and “can bring up self-judgments.”

#### *Therapists’ Uses of Conscious Breathing for Themselves in Clinical Practice*

Participants reported using conscious breathing for themselves in a variety of capacities in their psychotherapy practices. Some said that they use it as a tool to monitor or watch their own experience in session. Several therapists also said they use conscious breathing to stay present and connected with themselves. One therapist said,

[Conscious breathing] is a way to really stay present, stay in contact with myself. Just, kind of holding a light awareness of my breathing, kind of in and out. ... And I don't know, but I have a feeling that the way I am present with myself impacts the other person's experience somehow.

Though most clinicians said they did not use conscious breathing as a means for assessing transference and countertransference, many said they used conscious breathing in session to help them regulate themselves and cope with intense affect. One participant, however, did report that, “in that state of mindfulness and breathing, then there's more space for other awarenesses [*sic*] to come up. ... The breath create[s] the space for that awareness.”

The majority of participants reported that they have had personally transformative or healing experiences through the personal use of a conscious breathing practice—be it yoga, meditation, tai chi, or biofeedback. A few participants said they use their personal breathing practices to help them cope with job stress. Most participants who worked in public mental health settings reported that they use conscious breathing in between sessions to help “reset” or “refocus” themselves between sessions. One clinician, who reported seeing up to ten clients per day, said that she uses conscious breathing as a means of energizing her throughout the day. Another therapist said that he has found it easier to “be in service of others” when he has meditated in the morning. He said,

I find I do much better work if I've practiced that morning. ... I suffer a lot less. I know how to get a grip on my emotions before they cascade. So obviously I'm more energetic and available to other people too.

Finally, many participants said that having benefited from and having maintained a breathing practice helps them to teach and facilitate their clients in conscious breathing as well. One therapist said,

I think that they [the clinician] would actually have to have their own breathing practice to really be able to share it. . . . You could make a comparison between if someone's been in psychotherapy themselves for a number of years before they are then a clinician.

### *Summary*

The data presented in this chapter explore how psychotherapists conceptualize their use of conscious breathing, and the ways they use conscious breathing in clinical practice. Participants tended to conceptualize their use of conscious breathing in more than one of the following ways: (1) as a way for people to “resource themselves,” (2) as a way of relating to a person holistically, (3) as a means of cultivating present-awareness focus and mindfulness, (4) as a way of tapping into information and traumas stored in the body, and (5) as a means of mutual regulation. There seemed to be five distinct ways participants reported using conscious breathing as an intervention with clients, ranging from brief and simple to more time-intensive and complex. These included: (1) encouraging the client to breathe, (2) “contacting” breathing patterns, (3) teaching mindfulness breathing, (4) teaching structured breathing exercises, and (5) “matching” or “mirroring” the client’s breathing. Participants who had received similar trainings on somatic psychotherapy tended to say they conceptualized and used conscious breathing interventions similarly.

Participants said that, like any therapeutic intervention, clinicians should use their discretion when choosing who to use the intervention with, when to use it, and how to go about integrating it into treatment. Most participants said that they physically engage in the conscious breathing activity in some way with clients. Many participants also reported that conscious breathing interventions can feel “intimate” and can be

“evocative” for some clients, particularly those with trauma histories. Because of this, many participants talked about the importance of establishing trust and rapport with clients beforehand, making sure the client has choice and control over what they do. Participants also said tended to suggest that therapists should introduce conscious breathing interventions gently and slowly, no matter how far into treatment they may be.

Though this study did not focus on outcomes, many participants reported that engaging in conscious breathing exercises could strengthen the therapeutic relationship, in addition to helping center and calm clients. Many participants also said that, though conscious breathing interventions are not equally effective for all clients, it does not seem to have negative effects or significant contraindications. In conclusion, participants universally reported that conscious breathing can be an effective therapeutic intervention, and said that it should be considered thoughtfully before using with clients, much as a clinician might evaluate using any other type of intervention in treatment.

## CHAPTER V

### DISCUSSION

The purpose of this qualitative study was to explore the ways psychotherapists conceptualize and utilize conscious breathing in psychotherapy. This chapter will consider this study's findings as they relate to peer-reviewed, published research on the topic. Though a search of the literature shows that no other empirical study previously addressed the main questions addressed in this project, similarities and differences between this study's findings and the literature relating to conscious breathing, psychology, and mental health are considered. This chapter examines first the findings on therapists' conceptualizations of conscious breathing, and second, the findings on therapists' uses of conscious breathing in clinical practice. Finally, this chapter discusses the study's strengths and limitations, as well as implications for clinical practice and future research.

#### *Conceptualizations of Conscious Breathing in Clinical Practice: Considerations*

This study found that the ways therapists conceptualize conscious breathing are not limited to the Cognitive Behavioral Therapy orientations, which make up the body of the current literature, but expand to include somatic- and psychodynamic-theoretical orientations as well.

The study data show that clinicians who use conscious breathing in their psychotherapy practices believe that the mind and the body, or the physiological and the

emotional, are interconnected. This is the one conceptualization that every study participant referred to at least once in their interview, a result that suggests that this belief is at the core of conceptualizing conscious breathing in clinical practice. Discussions in the literature reflect a similar sensibility in the academic mental health field that the mind and body are interrelated. Furthermore, the literature seems to call for more integration of holistic ways of working into clinical practice (Finger and Arnold, 2002, Becvar et al., 1998; Calabrese, 2008). Accordingly, most participants in this study said they use conscious breathing as a means of relating holistically to their clients.

Study findings also support research in the field of respiratory psychophysiology that purport the idea that a person's breathing and emotions are related, but go further by suggesting that much more than just emotions are inherent in a person's breathing patterns. For example, the literature acknowledges a connection between breathing and emotion, referring to this confluence as a person's breathing behavior (Fontanini and Bower, 2006; Homma and Masaoka, 2008; Petersen, Orth, and Ritz, 2008; Rietveld and Prins, 1998). Several participants in this study, however, suggested that breathing behaviors act as a gateway not only to one's emotions, but also to their belief systems. In this sense, the study findings point to idea that emotions, belief systems, trauma, and other experiences are, as several participants said, "held in the body."

This study's data as presented above, considered with Calabrese (2008) and Kerr (2002), promote the idea that psychotherapeutic paradigms should and could be expanded beyond traditional talk therapy. The literature points to the fact that for years non-European cultures have used experiential therapies over rational talk therapies (Calabrese, 2008). Given the little research that exists on the topic, the literature is also

suggestive of the fact that, as Calabrese says, professional norms in the West tend to privilege “reasoning” over “experiencing” (p. 335). Contrary to said norms, this study’s findings support the idea that experiential interventions like conscious breathing can be effective and easily integrated into psychotherapy, and that traditional conceptions of what psychotherapy is are increasingly including experientially oriented interventions like conscious breathing.

According to the literature, the most widely accepted conception of conscious breathing is as a Cognitive Behavioral Therapy (CBT) or psycho-educational intervention (Becvar, Cook, and Pontious, 1998; Mueser et al., 2007; Paul, Elam, and Verhulst, 2007; Penava et al., 1998; Shcherbatykh, 2000; Watson et al., 1997). Though most participants did not report having a purely cognitive-behavioral theoretical orientation, about half of participants did report being theoretically oriented towards Mindfulness-Based-Cognitive-Therapy (MBCT). CBT is a style of psychotherapy that emphasizes the role of thinking in what a person feels or does (for example, how negative thoughts lead to negative behaviors). Slightly different, MBCT emphasizes the use of mindfulness meditation to facilitate a nonjudgmental process of noticing or paying attention to one’s thoughts and feelings. Accordingly, most therapists understood conscious breathing to fit into psychotherapy as a means of cultivating present focus and awareness and as a way for people to “resource themselves.” Research on Mindfulness Meditation (MM), though not specifically measured in a psychotherapy context, correlates MM with positive mental health outcomes (Carlson et al., 2004; Napoli et al. 2007; Samuelson et al., 2007). This study’s findings, coupled with the above research, could be suggestive of the fact that conscious breathing interventions are not purely technical, but that also central to the



intervention is the intention a person has in doing it, and the way a clinician helps their client to approach it (e.g. non-judgmentally, mindfully, etc.).

Furthermore, the study findings suggest that conscious breathing could be conceptualized in psychotherapy as embodying therapeutic principals that are consistent with more psychodynamically-oriented approaches like D. W. Winnicott's Object-Relations and Heinz Kohut's Self Psychology. Such notions, however, are not supported in the literature. Also, the majority of participants did not explicitly talk about conceptualizing conscious breathing in this way. That said, most participants used language suggestive of these theoretical perspectives when they talked about how they integrate conscious breathing into practice. For example, Winnicott postulated that a holding environment enabled infants to develop a healthy sense of self because they feel safe and protected by their mothers physically and psychologically, and this idea has been applied to the correlate relationship between therapist and patient. Keeping this in mind, most participants in this study said they thought that a therapist should always be sure to "hold" their clients in "nurturing" and "supportive" ways when using conscious breathing in therapy, an approach that one clinician specifically said contributes to the sense of the "holding environment." In this way, participants also spoke about the centrality of the therapeutic relationship when engaging in conscious breathing interventions and highlighted the importance of having established trust and rapport with the client.

In addition, a few therapists talked about how engaging in conscious breathing techniques seems to strengthen their sense of "attachment" between themselves and their clients. This finding could point to a connection between conscious breathing and John Bowlby's theories of attachment between infants and their caregivers.

Also, a few other clinicians said that they felt an increased sense of “attunement” with their clients when they were attentive to facilitating conscious breathing interventions in ways that met the client’s needs (e.g. the right speed, length, etc.). This conceptualization refers to Kohut’s notion of empathic mirroring, in which the therapist provides the patient with the experience of feeling listened to and understood.

Similarly, these findings also suggest that conscious breathing is an intrinsic form of mutual regulation that occurs between the therapist and client. The concept of mutual regulation, emerging out of psychological infant research, refers to the “psychobiological dyadic system of emotional communication ... that adaptively sustain relationships—including the therapeutic alliance” (Dales, S. & Jerry, P., 2008, p.283). Beebe et al. (2003) point to the role of nonverbal communication in mutual regulation in light of their research on mother-infant bonds, which they apply to therapist-client relationships as well. Beebe et al. (2003) suggest that nonverbal communication patterns—for instance, the coordination or matching of bodily movement, facial expressions, voice, and gaze—inherently provide powerful mirroring and empathic experiences without words (p. 813). Though most participants in this study did not report conceptualizing their use of conscious breathing specifically as a means of “mutual regulation,” consistent with the emerging infant research, many clinicians said they found that when they were mindful of their own breathing, their clients appeared to start regulating their breathing as well.

#### *Uses of Conscious Breathing in Clinical Practice: Considerations*

The findings suggest that conscious breathing is a practical, accessible, flexible tool that can be applied in clinical mental health practice in a variety of ways, including assessment and therapeutic invention, and that how those techniques are applied matter

and can implicitly contribute to the therapeutic relationship. The data show that there are two main categories of conscious breathing interventions: “bottom-up” interventions, which use the experience of one’s body to inform one’s thoughts, and “top-down” interventions, which use one’s conscious thought to direct one’s physical actions. The majority of the conscious breathing interventions evaluated in the literature could be categorized as “top-down” approaches, particularly those that evaluated both western-medically-oriented interventions (Carlson et al., 2004; Kjellgreen et al., 2007; Krishnamurthy and Telles, 2007; Matsumoto and Smith, 2001; Paul, Elam, and Verhulst, 2007; Shcherbatykh, 2000; Watson et al., 1997). Many therapists who participated in this study, however, reported using both “top-down” and “bottom-up” approaches. The findings also showed that clinicians believe conscious breathing interventions can be useful for many people, though they are not for everybody. Because of the body-oriented nature of conscious breathing, the data suggests that therapists should be sensitive to engaging in these kinds of interventions with people who have experienced physical trauma.

The patient populations with whom therapists said they use conscious breathing corresponded for the most part with patient populations demonstrated by previous research to benefit from conscious breathing-type interventions, such as people who struggle with anxiety and anxiety-disorders (Paul, Elam, and Verhulst, 2007; Shcherbatykh, 2000). The literature also suggests, though, that conscious breathing can be a helpful intervention for relieving depression (Krishnamurthy and Telles, 2007; Kjellgreen et al., 2007), whereas therapists in this study did not report working with people with depression specifically in this way. Therapists in this study also said that a

client's level of cognitive functioning informs the extent to which they integrate conscious breathing into treatment, whereas no other studies discussed cognitive ability as a factor.

Neither the literature nor this study's findings point to evidence for any significant contraindications for using conscious breathing techniques, nor do they point to any significant adverse effects. Participants in this study overwhelmingly reported that the application of a conscious breathing intervention should be thoughtfully considered, much like any other intervention, given the client's trauma history, clinical needs, and treatment goals.

In terms of accessibility, participants largely said that the therapist should introduce conscious breathing in ways that are "copasetic" with the client's worldview. The vast majority of clinicians in this study, who largely identified as Caucasian, reported that breathing techniques are applicable across cultures, races, genders, religions, and socio-economic classes. In contrast, two of the three participants of color reported that they have they have found conscious breathing exercises to resonate better or worse with clients depending on their culture. For instance, a Chinese-born participant in this study said she thought Asian families respond better to breathing techniques because such practices are common in the culture. Alternatively, a Bi-racial Latina and Caucasian participant said that foreign-born Latin clients would likely find somatic interventions like conscious breathing to be "too intrusive," because there is a different expectation of "boundary" concerning the body in that culture. Though not explicitly noted, the literature is suggestive of the fact that cultural biases towards or against conscious breathing interventions exist. For example, the studies on yogic breathing, conducted in

India with culturally and ethnically Indian subjects (Krishnamurthy and Telles, 2007; Raghuraj & Telles, 2008) report that practicing yoga and yogic breathing has highly significant benefits for mental health and well-being. In comparison, the studies that report the least significant impact of conscious breathing interventions were conducted in the United States with largely Caucasian study subjects in Mid-Western states (Schmidt et al., 2000; Watson et al., 1997).

### *Study Strengths and Limitations*

There are a number of strengths and limitations to keep in mind while considering the findings of this study. The strength of this project lies in the exploratory study design, which allowed for the collection of rich data and practice wisdom through the nuanced stories and experiences that participants shared. The fact that all of the participants were interested in the idea of using conscious breathing in clinical practice posed a possible limitation, however, in that clinicians who do not believe conscious breathing is relevant to psychotherapy did not contribute to the data. Additionally, all but one participant had received advanced training of some kind on somatic psychotherapy, therefore the study findings may be biased towards the philosophies and techniques purported by a select group of training programs that participants attended.

Furthermore, although my aim was to remain as neutral as possible while conducting interviews and analyzing the data, it is possible that my bias and interest in integrating conscious breathing and psychotherapy influenced the interpretation of the findings.

### *Areas for Future Research*

While the findings from this study suggest that conscious breathing can be used as an effective therapeutic tool in a number of ways, whether or not these interventions work is still undetermined. Before conducting further research on the techniques themselves, however, it would be prudent to first assess the efficacy of these breathing interventions from perspective of the *client* who is in psychotherapy. Are the clinicians in this study assuming that conscious breathing techniques “work,” or are the techniques themselves actually effective? Also, do the ways in which a therapist conceptualizes and applies conscious breathing techniques in therapy impact the outcomes for a client? Further research on how clinicians can integrate conscious breathing most effectively into their clinical practice, perhaps through methods of videotaping or direct observation, would also be useful.

Such efforts are likely to be complicated, as many researchers who investigated the relevance of conscious breathing and mental health have recognized that it is a difficult topic to study and quantify. Breathing as an intervention is not easily separated from the natural and essential act of respiration. Many participants in this study also spoke to the challenge of isolating conscious breathing as an intervention in and of itself because, as discussed above and as demonstrated in the literature, many people seem to conceptualize conscious breathing as being a part of a larger intervention like yoga or mindfulness. Even researchers who did not study conscious breathing from a CAM perspective noted that breathing in and of itself is difficult to control for as a variable.

In the sense that different *conceptualizations* of conscious breathing offer different applications in psychotherapy, further research into a variety of healing

paradigms would also be valuable for advancing the field of clinical practice. As Calabrese (2008) asserts, contemporary western psychotherapy has tended to focus on “positivist,” “mind-body dualist,” and “euro-centric” assumptions of mental health and healing (p. 335). In accordance with Calabrese (2008), this study reveals that when clinicians consider differing world-views and paradigms of health, as well as non-traditional healing techniques, the possibilities for therapeutic intervention grows. This process of considering radically different paradigms of health and healing is not easy for many clinicians. One participant touched on some of the ideas that Calabrese (2008) articulates in his article. Highlighting the process she went through from being skeptical about interventions like conscious breathing to having a deeper understanding and appreciation of them, she said,

My sense of these interventions is that they are extremely powerful and we don't know really—I don't think that they are quantifiable. ... It's a very different paradigm than the traditional western thing. And so for me it's just a continued journey ... a very, very long kind of turning. ... There are just other ways of thinking about things. And just because we haven't been exposed to them doesn't mean that they're not true, or real, or whatever you wanna call it. So I think for me, that realization is—to broaden and have respect for other philosophies, and other traditions, and other ways of looking at the universe. It is what's been very, very vital to my growth as a [practitioner], and as a person in general.

Thus, even though conscious breathing as a therapeutic intervention may be challenging to consider and difficult to quantify, further research on the role of breathing in psychotherapy has the potential to expand therapeutic repertoire for clinicians and anchor these otherwise “foreign” ideas firmly in the literature.

### *Clinical Implications*

The findings of this study suggest that conscious breathing can be used as an effective therapeutic intervention in psychotherapy when appropriate, and that its

application should and could be tailored to needs of the client given their treatment goals. Maintaining active engagement with the client while facilitating the conscious breathing is recommended because it can show support for the client and decrease the clients' experience of feeling objectified or watched. Study data also suggest that it is more effective to practice the technique in session, rather than just telling clients about it for them to practice on their own. Along these lines, data show that practicing conscious breathing regularly with clients helps them to better internalize the technique such that they are more likely to use it for themselves outside of treatment.

Additionally, study findings suggest that having a personal practice outside of therapy work makes it easier for therapists to teach and use the techniques, thereby increasing the chance of positive outcomes. The data also implies that having a personal conscious breathing practice can increase the emotional availability of the therapist needed to be present with clients, as well as help to create mental space for the awareness of transference and countertransference to arise in the clinician. The findings also imply that Master's level counseling programs should consider integrating an introduction to somatic-based therapies and the possible benefits and applications of such techniques.

Moreover, the findings suggest that the clinical mental health field could benefit from greater dialogue around the ways that western paradigms of healing seem to be privileged. Simultaneously, on-going training and discussion in supervision as to how different world-views and paradigms of healing can be applied to psychotherapy practice when clinically relevant.

In conclusion, this study supports the idea that it is clinically relevant to consider incorporating conscious breathing interventions in psychotherapy treatment, and that



those interventions can have powerful outcomes for clients. There are many ways clinicians can conceptualize the operation of conscious breathing in psychotherapy, ranging from the very implicit (e.g. mutual regulation), to the explicit (e.g. Mindfulness-Based Cognitive Therapy). This study concludes that there are many ways clinicians can think about engaging their clients in conscious breathing, and that the clinician can and should modify the technique to fit the client's treatment needs as well as their belief system. Through the study of conscious breathing techniques, clinicians can also learn about different and useful healing paradigms that they can adopt to expand their clinical repertoire. Lastly, this study supports the notion that “the relationship matters” throughout the psychotherapeutic process. To that end—though conscious breathing encompasses the body, mind, and emotions in ways that traditional psychotherapy models do not—trust and rapport between therapist and client remain central, congruent with clinical practice.

## References

- Becvar, D. S., Cook, C. A. L., & Pontious, S. L. (1998). Complementary alternative medicine: Implications for family therapy, *Contemporary Family Therapy*, 20(4), 435-456. Retrieved on Jan. 22, 2009, from <http://libproxy.smith.edu:4840/ehost>
- Brief history of ISARP. (n.d.). Retrieved July 29, 2008, from The International Society for the Advancement of Respiratory Psychophysiology (ISARP) website: <http://www.ohiou.edu/isarp/history.htm>
- Brown, R.P. & Gerbarg, P.L. (2005a). Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety, and Depression: Part I—Neurophysiologic Model. *The Journal of Alternative and Complementary Medicine*, 11(1), 189-201. doi: 10.1089/acm.2005.11.189
- Brown, R.P. & Gerbarg, P.L. (2005b). Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety, and Depression: Part II—Clinical Applications and Guidelines. *The Journal of Alternative and Complementary Medicine*, 11(4), 711-717. doi:10.1089/acm.2005.11.711
- Calabrese, J.D. (2005b). Clinical paradigm clashes: Ethnocentric and political barriers to Native American efforts at self-healing. *Ethos*, 36(3), 334-353. doi:10.1111/j.1548-1352.2008.00018.x.
- Carlson, L.E., Speca, M., Patel, K.D., & Goodey, E. (2004). Mindfulness-based stress reduction in relation to quality of life, mood, symptoms of stress and levels of cortisol, dehydroepiandrosterone sulfate (DHEAS) and melatonin in breast and prostate cancer outpatients. *Psychoneuroendocrinology*, 29, 448-474. doi: 10.1016/S0306-4530(03)00054-4
- Dales, S. & Jerry, P. (2008). Attachment, affect regulation and mutual synchrony in adult psychotherapy. *American Journal of Psychotherapy*, 62(3), 283-312. <http://www.ncbi.nlm.nih.gov/pubmed/18846973>
- Eisenberg, D. M., Kessler, R. C., Van Rompay, M. I., Kaptchuk, O. M. D., Wilkey, S. A., Appel, S., & Davis, R. B. (2001). Perceptions about complementary therapies relative to conventional therapies among adults who use both: Results from a national survey. *Annals of Internal Medicine*, 135(5), 344-351. Retrieved September 22, 2008, from Academic Search Premier database.
- Ekerholt, K. & Bergland, A. (2008). Breathing: A sign of life and a unique area for reflection and action. *Physical Therapy*, 88(7), 832-840. doi: 10.2522/ptj.20070316

- Evans, S., Ferrando, S., Findler, M., Stowell, C., Smart, C., & Haglin, D. (2007). Mindfulness-based cognitive therapy for generalized anxiety disorder, *Journal of Anxiety Disorders*, 22. doi: 10.1016/j.janxdis.2007.07.005
- Fontanini A & Bower JM (2006). Slow-waves in the olfactory system: an olfactory perspective on cortical rhythms. *Trends in Neuroscience*, 29(8), 429–437. doi: 10.1016/j.tins.2006.06.013
- Grossman, E., Grossman, A., Schein, M. H., Zimlichman, R., & Gavish, B. (2001). Breathing-control lowers blood pressure. *Journal of Human Hypertension*, 15, 263-269. Retrieved October 5, 2008, from PubMed.
- Hahn, N & Willis, J. (2003). *A lifetime of Peace: Essential writings by and about Thich Nhat Hanh*. Available from [http://books.google.com/books?id=26DT8DNnGaMC&printsec=frontcover&client=safari&source=gbs\\_navlinks\\_s](http://books.google.com/books?id=26DT8DNnGaMC&printsec=frontcover&client=safari&source=gbs_navlinks_s)
- Homma, I. & Masaoka, Y. (2008). Breathing rhythms and emotions. *Experimental Physiology: Translation and Integration*, 93(9), 1011-1021. doi: 10.1113/expphysiol.2008.042424
- Kerr, C. (2002). Translating “mind-in-body”: Two models of patient experience underlying a randomized controlled trial of *qigong*, *Culture, Medicine and Psychiatry*, 26, 419-447. Retrieved on October 5, 2008, from PubMed database.
- Kjellgren, A., Bood, S. A., Axelsson, K., Norlander, T., & Saatcioglu, F. (2007). Wellness through a comprehensive Yogic breathing program—A controlled pilot trial [Electronic Version]. *BioMed Central Complementary and Alternative Medicine*, 7(43). doi:10.1186/1472-6882-7-43
- Krishnamurthy, M. N. & Telles, S. (2007). Assessing depression following two ancient Indian interventions: effects of yoga and ayurveda on older adults in a residential home [Electronic Version]. *Journal of Gerontological Nursing*, 33(2), 17-23.
- Kuroda, T. (1990). Breathing, health, and cosmic consciousness, *Psychologia*, 33(3), 139-146. Retrieved from <http://libproxy.smith.edu:4840/ehost>
- Matsumoto, M. & Smith, J. C. (2001). Progressive muscle relaxation, breathing exercises, and ABC relaxation theory. *Journal of Clinical Psychology*, 57(12), 1551-1557. Retrieved October 5, 2008, from PubMed.
- Moadel, A. B., Shah, C., Wylie-Rosett, J., Harris, M. S., Patel, S. R., Hall, C. B., & Sparano, J. A. (2007). Randomized controlled trial of yoga among a multi-ethnic sample of breast cancer patients: Effects on quality of life. *American Society of Clinical Oncology*, 25(28), 4387-4395. doi: 10.1200/JCO.2006.06.6027

- Mueser, K. T., Bolton, E., Carty, P. C., Bradley, M. J., Ahlgren, K. F., DiStaso, D. R., Gilbride, A., & Liddell, C. (2007). The trauma recovery group: A cognitive-behavioral program for post-traumatic stress disorder in persons with severe mental illness. *Community Mental Health Journal*, *43*(3), 281-304. doi: 10.1007/s10597-006-9075-2
- Napoli, M., Krech, P., & Holley, L. (2005). Mindfulness training for elementary school students: The Attention Academy. *Journal of Applied School Psychology*, *21*(1), 99-125. doi:10.1300/J370v21n01\_05
- Novosad, C. & Thoman, E. B. (2003). The breathing bear: An intervention for crying babies and their mothers, *Developmental and Behavioral Pediatrics*, *24*(2), 89-95. Retrieved on Oct. 4, 2008, from PubMed.
- Paul, G., Elam, B., & Verhulst, S. J. (2007). title. *Teaching and Learning in Medicine*, *19*(3), 287-292. Retrieved on October 5, 2008, from <http://libproxy.smith.edu:2962/pubmed/11059163>
- Penava, S. J., Otto, M. W., Maki, K. M., & Pollack, M. H. (1998). Rate of improvement during cognitive-behavioral group treatment for panic disorder. *Behaviour Research and Therapy*, *36*, 665-673. Retrieved February 11, 2009, from Academic Search Premier database.
- Petersen, S., Orth, B., & Ritz, T. (2008). Awareness of breathing: The structure of language descriptors of respiratory sensations. *Health Psychology*, *27*(1). doi: 10.1037/0278-6133.27.1.122
- Raghuraj, P. & Telles, S. (2008). Immediate Effect of Specific Nostril Manipulating Yoga Breathing Practices on Autonomic and Respiratory Variables. *Applied Psychophysiology and Biofeedback*, *33*, 65-75. doi: 10.1007/s10484-008-9055-0
- Rietveld, S. & Prins, P. J. M. (1998). The relationship between negative emotions and acute subjective and objective symptoms of childhood asthma, *Psychological Medicine*, *28*. Retrieved on July 17, 2008, from PubMed database.
- Samuelson, M., Carmody, J., Kabat-Zinn, J., & Bratt, M. A. (2007). Mindfulness-Based Stress Reduction in Massachusetts correctional facilities. *The Prison Journal*, *87*(2). Retrieved on June 10, 2008, from <http://tpj.sagepub.com>.
- Schmidt, N. B., Woolaway-Bickel, K., Trakowski, J., Santiago, H., Storey, J., Koselka, M., & Cook, J. (2000). Dismantling cognitive-behavioral treatment for panic disorder: Questioning the utility of breathing retraining. *Journal of Consulting and Clinical Psychology*, *68*(3), 417-424. doi: 10.1037//0022-006x.68.3.417
- Seidel, J. V. (1998). Qualitative Data Analysis. Retrieved April 28, 2009, from <ftp://ftp.qualisresearch.com/pub/qda.pdf>

Shcherbatykh, Y. V. (2000). Self-regulation of autonomic homeostasis in emotional stress. *Human Physiology*, 26(5), 641-642. Retrieved on October 5, 2008, from <http://libproxy.smith.edu:2962/pubmed/11059163>

Watson, C. G., Tuorila, J. R., Vickers, K. S., Gearhart, L. P., & Mendez, C. M. (1997). The efficacies of three relaxation regimens in the treatment of PTSD in Vietnam War veterans. *Journal of Clinical Psychology*, 53(8), 917-923. Retrieved October 5, 2008, from PubMed.

## APPENDIX A

January 11, 2009

Mia Gutfreund

Dear Mia,

Your revised materials have been reviewed and all is now in order. I am glad that our suggestions were helpful to you and do feel that now your chances of getting a viable sample are much greater. We are glad to give final approval to your study.

*Please note the following requirements:*

**Consent Forms:** All subjects should be given a copy of the consent form.

**Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your project.

Sincerely,

Ann Hartman, D.S.W.  
Chair, Human Subjects Review Committee

CC: Beth Kita, Research Advisor

## APPENDIX B

### Participant Informed Consent Form

Dear Participant,

My name is Mia Gutfreund and I am a graduate student at the Smith College School for Social Work. As part of my Master's thesis, I am researching the ways psychotherapists conceptualize and utilize conscious breathing in clinical practice. The findings of this study will be presented, and if appropriate, could be published.

I will collect my 'data' via in-person interviews with social workers (MSW's), marriage and family therapists (MFT's), psychiatrists (MD's), and psychologists (PhD's and PsyD's). Interviews should take no more than 45 minutes each, and will be scheduled at a time that is convenient for you (the participant). Interviews will likely be conducted in your office space. However, if you do not have an office or if it is unavailable, I am able to meet you in an alternative location that is comfortable for you and that will protect your confidentiality. In the course of the interview, demographic data that is relevant to the study will be obtained, such as gender, race/ethnicity/cultural background, and religious or spiritual affiliation. With your permission, I may contact you in the future to follow-up with brief, clarifying questions via phone. All data should be tape recorded and then transcribed by myself. In the event that I do hire someone to help, however, anyone transcribing tapes will sign a confidentiality agreement.

The Smith College Human Subjects Review Board has reviewed the proposal for this study and has concluded that this is a very low-risk study with minimal possible negative consequence of participating. You might benefit from participating in this study by having the opportunity to reflect upon your use of breathing through the interview

process. Furthermore, by participating in this study you may also feel connected to the larger community, or feel altruistic for contributing to research that aims to enhance practice and help to advance the profession. Due to the small scale of this research project, you will not be compensated for your participation in this study, however the donation of your time is greatly appreciated.

Efforts will be made to keep the information that you share with me confidential. Presentations and publications will be prepared in such a way that participants will not be identified. Direct quotes will be attributed to a pseudonym, or fictitious name given by me, to the participant. To give the quote some context, I may also refer to the type of agency in which the participant practices when directly quoting a participant. The names of any clients mentioned will be changed if case vignette information is included.

Efforts will also be made to keep your participation in this study confidential. My research advisor will have access to the data only after your identifying information has been removed. You will be given a code number, and all identifiable information (such as your name) will be removed from transcriptions. You will be asked to not divulge identifiable client information, such as their name, during interviews.

Signed informed consents, research logs, and a list of contact information will be stored separately from tapes and transcriptions. Anyone transcribing tapes or analyzing data in which you could be identified will sign a confidentiality agreement. Due to the snowball sampling technique used, however, the recruitment process will not be able to be kept completely confidential.

All data will be stored in a locked cabinet, and any electronic data will be stored in a password-protected file. As required by federal regulations, all data and tapes will be



kept secure for three years, after which they will be destroyed. If I am still using your data for research purposes, I will continue to keep all data in a secure place to ensure confidentiality. I will destroy them when they are no longer needed.

Your participation in this study is voluntary. You may withdraw from the study at any time during the data collection process and you may refuse to answer any question without penalty. If you wish to withdraw from the study, you may do so anytime before March 31<sup>st</sup>, 2009. In the event of a withdrawal, all materials pertaining to you will be immediately destroyed. You can contact me (the researcher) at anytime via phone or via email. Feel free to call with questions or if you wish you withdraw at any point of the study. Should you have any concerns about your rights or about any aspect of the study, please call me at the phone number above, or contact the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974. Please keep a copy of this consent for your own records.

Thank you for your interest and participation in this research project!

**YOUR SIGNIATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.**

**Participant's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Investigator's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

APPENDIX C

Demographics Form

Full Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_

Degree & specialization (if any): \_\_\_\_\_ Grad. Year: \_\_\_\_\_

How do you self-identify racially, ethnically, and/or culturally?

---

---

How do you characterize your religious/spiritual affiliation?

---

---

What kinds of formal, post-graduate training have you pursued (if any) that is in anyway related to this study topic and through what institution/university?

---

---

---

In what setting do you work, and for how long have you worked in that setting?

---

---

---

---

---

## Interview Guide

1. How would you describe your theoretical orientation?
2. For the purposes of this study I am using the term ‘conscious breathing’ to refer to the intentional awareness or modulation of one’s breathing. It is meant to be a broad term that encompasses a variety of breathing techniques and purposes for using those techniques. Given this definition, do you think it is appropriate to use conscious breathing in psychotherapy? Why or why not?
3. Given that same definition, would you say you use conscious breathing in your clinical practice?
4. Do you use conscious breathing explicitly in session? If so, how?
  - a. What do you do? [If subject needs prompting, give examples: Exercises, visualizations? Use as an assessment tool? Other?]
5. Can you give an example of how you have used this technique in a session?
6. Are there any contraindications for using [your conscious breathing technique]? If so, in what instances do you avoid using conscious breathing techniques?
7. How do you introduce or explain this technique to your clients? I’m interested in the kinds of words and the affect you use (or don’t use) in communicating it to them, as well as what the main idea/concept is that you want clients to take in.
8. What kinds of responses have you gotten from clients when you introduce [the conscious breathing technique] and does this reaction change over time? If so, how?
  - a. Do you find clients to be biased against these kinds of activities, or are clients generally open to it? Please share one instance.
  - b. Which clients do you use these techniques with? Is there certain criteria for determining who you use these techniques with, and who you don’t? Do you think you might be biased in who you use these techniques with?
  - c. Do you find this/these technique(s) to be accessible to all clients, across age, culture, SES, racial/ethnic, religious groups?
9. What do you do/focus on/look for while your client is engaging in [your conscious breathing technique]? Is that awkward to watch the client, or do they feel on the spot? How do you deal with that? Power dynamic?
10. When do you use conscious breathing, and how often? How soon into the therapeutic relationship do you use conscious breathing?
11. How is using breathing in this way in psychotherapy different from using this technique in another setting (like yoga or meditation)?

12. Do you practice breathing awareness for yourself in session?
  - a. Do you use it to interpret transference and countertransference? Can you give an example?
  - b. Do you use your own breathing as a way to regulate your client? What has been your experience with that?
13. What is your understanding/conceptualization/personal and professional view of conscious breathing? [If subject needs prompting, give examples: breathing is a purely physiological process, mind-body understanding, psychodynamic/relational orientation, spiritual tool, etc.]
  - a. How do you theoretically or conceptually see conscious breathing being useful in psychotherapy?
14. How would you characterize your intersubjective experience with your client when engaged in conscious breathing? Does the conscious breathing alter it in anyway? If so, how?
15. What trends do you see or presume exist among clinicians in the field in their uses of and attitudes towards using conscious breathing in practice? [If subject needs prompting, give examples: unaware, resistance/bias, growing interest, etc.]
  - a. How did you form this opinion, or what has been your experience?

*Personal Questions*

16. How did you learn or develop your perspective and the techniques you use?
17. What has been your personal experience, if any, with conscious breathing?
18. Do you have any other thoughts or experiences you would like to share that would be important to this study topic?