AZUSA PACIFIC UNIVERSITY

INTEGRATING MINDFULNESS-BASED EMPIRICALLY SUPPORTED TREATMENTS (MB-ESTs) INTO EVIDENCE BASED PRACTICE (EBP): A REPLICATION AND EXTENSION STUDY

by

Kristen Kochamba

A dissertation submitted to the

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ABSTRACT

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The common elements approach is a growing means of implementing EBPP and tethering clinical decision making to the evidence base. The goal of this dissertation is to discern the common elements of the mindfulness-based empirically supported treatments (MB-ESTs) to better inform clinical practice. This work extends and expands on the original work of Fielding (2009) on this topic, with a firm rationale based on prior common elements studies. In the current study, there will be two primary changes; 1. The methodology is being revised, and; 2. The most recent manuals and research developments will be included. This dissertation contributes to the mindfulness scholarship because it offers an opportunity to further validate and derive the core constituents of effective mindfulness-based treatment. From this study of the common elements of the MB-ESTs, benchmarks may be derived for clinical considerations for mindfulness-based evidence based practice.

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CHAPTER 1

INTRODUCTION

The clinical application of mindfulness to psychological health issues has increased exponentially in recent years. In clinical practice, mindfulness is proposed as a skill where the practitioner brings full attention and awareness to present moment experience with non-judgment and acceptance (Bishop, 2004). Mindfulness is promoted through either formal practice, which includes meditation practices such as sitting meditation, body scan, and yoga, and/or through informal practice, which includes bringing full awareness to daily tasks such as bathing and eating.

The popularity of mindfulness is growing in concert with the emerging empirical evidence of its effects. There is a clear convergence of findings that suggest mindfulness is positively associated with psychological health. The vast majority of these findings have stemmed from the integration of mindfulness into manualized treatment protocols, which are predominately linked to the cognitive behavioral tradition. These mindfulness-based treatments have garnered an abundance of empirical support, and a group of them now qualify as Empirically Supported Treatments (ESTs). ESTs are those interventions that have been studied with the most scientific rigor and are the gold standard of practice in psychology by the American Psychological Association (APA).

These treatments have been described as the third wave of cognitive behavioral therapy, following behaviorism and cognitive behaviorism (Hayes, 2004). This most

recent iteration of treatments differs from traditional cognitive behavioral therapy in the integration of acceptance with change-based strategies.

Background of the Problem

Evidence Based Practice in Psychology (EBPP)

The mindfulness-based empirically supported treatments (MB-ESTs) are becoming a highly regarded choice for practitioners in the field. This may relate to the evidence supporting MB-ESTs in conjunction with the mandate for clinicians to use evidence-informed interventions in practice. APA's (2005) *Policy Statement on Evidence-Based practice in Psychology* (EBPP) now demands the flexible integration of best available research with clinical expertise and patient characteristics. EBPP requires clinicians to tailor treatment approaches so that they are responsive to the cultural needs and beliefs of the client. EBPP is not a set of guidelines but rather a framework for enhancing the delivery of psychological services (La Roche & Christopher, 2009).

EBPP rationale. In addition to the ethical obligation to provide effective treatment, political and economic forces are emerging, thereby necessitating clinician adherence to the new mandate on EBPP. As a functionally integrated part of primary care and other health care services, psychologists are becoming recognized as vital members of interdisciplinary health care teams. As such, managed health care organizations are now reshaping the way we practice psychology. To cut costs and remain competitive, managed health care organizations will be monitoring the quality and flexibility of treatment interventions. Thus, clinicians need to find a consistent means of adhering to managed care standards to be recognized and compensated for services. Together with the

ethical, social, and financial obligations to provide effective treatment, the immediate need for a consistent bridge to fill the research to practice gap is apparent.

Barriers to EBPP. EBPP is a promising new methods of improving the quality of treatment disseminated in the community. However, there are several barriers that exist to successfully implementing the mandate into practice. Barriers to EBPP include the absence of a consistent operational definition of EBPP, limited dismantling studies or manuals that address complex presentations or co-morbid diagnoses, dissatisfaction of clinicians towards a one-size-fits-all approach, and concerns regarding financial and time demands in learning ESTs. Finally, there is a question of whether redundancy exists across ESTs, which would make training in every EST inefficient.

Operationally defining EBPP. At present, we lack a consistent operational definition of EBPP. The question is how we are to remain tethered to the research base while flexibly meeting the needs of the consumer persists. Currently, clinicians are either adopting a whole treatment protocol or using a case conceptualization driven approach and clinical judgment to ascertain which elements of manualized approaches are essential or not essential when applied in practice. Although this can be effective, it can also produce greater variability in the quality of treatment disseminated in the community. Therefore, a consistent means of achieving evidence-based practice needs to be established.

***Limited dismantling studies*.** The shortage of dismantling studies serves as an additional barrier to EBPP (Kazdin, 2008). Dismantling studies are defined as studies that disassemble an effective treatment to determine the active ingredients or components responsible for therapeutic effect or outcome (Ilardi & Roberts, 2003). Due to a lack of

dismantling studies, the evidence base from which clinicians might make important decisions about which elements to integrate remains severely limited.

Transdiagnostic treatment. In recent years, transdiagnostic or unified treatment protocols have emerged that target common maintaining factors across emotional disorders. Although limited in study availability, a systematic review found transdiagnostic treatment to be associated with improved symptoms, better performance than wait-list controls, and improvements in comorbid disorders, and to be comparable to diagnosis-specific treatments. Also, unified protocols are associated with high client satisfaction, therapeutic alliance, group cohesion, and positive treatment expectations (McEvoy, Nathan, & Norton, 2009).

Despite the few treatments that have emerged, most manualized treatments have yet to be modified for patients who present with comorbid symptoms or complex diagnoses. This makes it difficult for clinicians whose normal clientele do not present as neatly as the samples in randomized controlled trails (RCTs). Moreover, clinicians may lack the necessary infrastructure, training, and supervision required of these treatment protocols for them to be implemented successfully.

EST training costs. Finally, there is the problem of training and cost needs for making this transition. In a qualitative study investigating clinician attitudes towards ESTs, nearly all clinicians reported concerns regarding the time and financial demands in learning ESTs (Stewart et al., 2012). Improving resources for learning ESTs as well as offering ways of integrating these treatments into a clinician's existing framework were suggested as ways to increase access and interest in the community (Stewart et. al., 2012).

Statement of the Problem

The exponential growth of MB-ESTs' popularity and utility in concert with the need to adhere to APA's EPPP policy underscores the importance of establishing a consistent operational definition of EBPP. At present, clinicians must either adopt an entire manualized treatment protocol or make clinically informed decisions regarding which elements to integrate into EBP (Daleiden et al., 2006). Therefore, research is needed that identifies common elements of effective mindfulness-based treatment, which may provide clinicians with benchmarks of an operational definition of EBPP.

Purpose of the Study

Common Elements Approach

Description. The common elements approach is emerging in the field to bridge the gap between empirically supported treatments (ESTs) and evidence based practice (EBP). The common elements approach is predicated on the notion that ESTs share common components that contribute to their efficacy (Chorpita, Becker, & Daleiden, 2007). These common elements can be identified in a systematic way. Subsequently, clinicians may learn and apply them in practice to meet the clients' needs (Powell, Proctor, & Glass, 2014). This model of distilling large evidenced based protocols into smaller common elements is data-driven and therefore evidence informed. This model offers a way of bridging ESTs to EBP so that it is flexible yet still tethered to the research.

Clinical Application

Child and Adolescent Interventions. Chorpita, Becker, and Daleiden (2007) proposed this approach after noticing the need for evidence-supported treatments (ESTs)

to address comorbid symptoms and a variety of problems for children and adolescents. They identified shared common elements across child and adolescent ESTs for traumatic stress, depression, and anxiety. Subsequent studies of the common elements approach found interventions based on the common elements to be effective. A randomized control trial found that a common elements approach for children had better outcomes then a manualized EST (Weisz et al., 2012). Furthermore, Chorpita, Taylor, Francis, Moffitt, and Austin (2004) received positive results from use of a common elements approach for childhood anxiety disorders. Thus, there is support for the proposition that the common elements approach may be an effective means of implementing EBPP.

Research Rationale

Chorpita et al. (2005) pioneered the common elements approach in hopes of finding predetermined practice elements for children and adolescents. His coding system, the Practice Wise Clinical Coding System (2005), catalogs information from a multitude of study designs, presenting problems, and interventions. Due to the broad inclusion criteria, Chorpita decided to code the randomized clinical trials (RCTs) of treatments for specific disorders, such as anxiety, substance use, and traumatic stress. Therefore, his coding system did not evaluate the actual treatment manuals, which lent itself to some estimation and interpretation in regards to the treatment protocols being implemented by the researchers (Chorpita & Daleiden, 2007). The research studies only offered protocol descriptions, which is defined as a set of treatment operations in which members of a particular study group participated (Chorpita, Becker, & Daleiden, 2007). If the manuals were offered in the studies, then those would be coded over the protocol

descriptions. However, for many of the research studies, the manual that was being used was either outdated or not available.

Despite the low information availability, Chorpita found the value in his work lay within its ability to synthesize information across a great deal of literature. A clear result was produced from statistical sampling and an aggregated review of several hundred research studies. This is helpful for those wishing to know what research protocols have evidence to support a specific problem area. However, it provides challenges for those wishing to learn and implement the treatment protocols in practice. Given the importance of knowing the details of how to carry out these interventions and the relevance to practitioners, we decided to code the actual manuals as opposed to the research studies.

Other Common Elements Researchers

Garland et al. (2008) expanded on Chorpita's work by coding the manuals as opposed to the research studies. The first step involved identifying the treatments with the most empirical support for child and adolescent disruptive behavior problems. Then each treatment manual was reviewed, coded, and categorized using the elements of therapeutic content, treatment technique, aspects of the working alliance, and treatment parameters (Garland et al., 2008). Then the findings were submitted to experts using a modified Delphi technique. Twenty-one common treatment elements were extracted from the coding process and endorsed by at least 86% of the expert respondents.

Fielding (2009) expanded on Chorpita's work by applying his common elements model to the manuals of the MB-ESTs. At the time of Fielding's work in 2009, there were no other studies that applied the common elements methodology to the MB-ESTs. At that time, the mindfulness-based empirically supported treatments (ESTs) included

mindfulness-based stress reduction (MBSR), mindfulness-based cognitive therapy (MBCT), dialectical behavior therapy (DBT), and acceptance and commitment therapy (ACT). Fielding's study provided a first look at potential common element benchmarks. However, as stated by the researcher, the methods of Fielding's study contained substantial limitations. For example, the findings were not submitted to an expert panel for review so it is uncertain whether experts would endorse the elements. Furthermore, other methodology, such as those developed by Chorpita et al. (2005), Garland et al. (2008), and Strand et al. (2013), were not yet publicly available.

Strand et al. (2013) applied the common element's approach to trauma treatment manuals. After entering into an agreement with PracticeWise to obtain the clinical coding system, the researchers realized that the coding manual would not adequately capture the trauma-specific concepts found in the treatment manuals. Therefore, they adapted the coding manual based on a system similar to Garland's methods (Strand, Hansen, & Courtney, 2013). The methodology was based on grounded theory and coded the manuals by intervention objectives, or intended outcomes, and practice elements, or the actual procedures implemented with or on behalf of the client. Overall, Strand et al. (2013) identified 35 intervention objectives and 59 practice elements across eight trauma treatment manuals.

Research Objective

The common elements approach is a growing means of implementing EBPP and tethering clinical decision making to the evidence base. The goal of the present study is to code the manuals of existing mindfulness-based empirically supported treatments (MB-ESTs) to discern the common elements, and thus better inform clinical practice. This

work extends and expands on the original work of Fielding (2009) on this topic, with a firm rationale based on prior common elements studies. In the current study, there will be two primary changes:

1. The methodology is being revised.

2. The most recent manuals and research developments will be included.

This dissertation contributes to the mindfulness scholarship because it offers an opportunity to further validate and derive the core constituents of effective mindfulness-based treatment. From this study of the common elements of the MB-ESTs, benchmarks may be derived for clinical considerations for mindfulness-based evidence informed practice (Fielding, 2009).

CHAPTER 2

LITERATURE REVIEW

Mindfulness in Clinical Practice

Mindfulness Definition

The most often cited definition of mindfulness comes from the founder of mindfulness-based stress reduction (MBSR), John Kabat-Zinn (1994). He defines it as "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (1994, p. 4). This definition encompasses the two essential elements of mindfulness, which scholars in the field agree are:(a) self-regulation of attention and (b) taking a nonjudgmental stance towards one's experience (Keng, Smoski, & Robins, 2011).

Mindfulness as a skill. Mindfulness is viewed as a psychological process or skill that can be developed with practice. Mindfulness is a process of gaining insight into the nature of one's mind and taking a de-centered approach to internal events such as thoughts, feelings, and physical sensations. This impartial position of self-observation creates a space between one's perception and reaction. This perspective allows the practitioner to respond more reflectively as opposed to reflexively (Bishop et al., 2003). There are two ways that individuals can promote mindfulness; formal and informal practice.

Formal practice. Formal mindfulness practice includes sitting meditation, walking meditation, yoga, and body scan. In formal sitting meditation, the individual maintains an upright-seated position, and attempts to maintain attention on a single focal point, such as the somatic sensations of breath. When one's attention inevitably diverts to, for example, a thought, the individual simply takes note of the thought and then gently lets it go as the attention is shifted back onto the breath. With formal practice, attentional control strengthens as well as the ability to acknowledge whatever the mind wanders to, in a nonjudgmental, nonelaborative way (Kabat-Zinn, 1990; Segal et al., 2013). Furthermore, this decentered approach allows one to view thoughts as simply thoughts, without adding additional meaning, or reflecting on their implications. Thus, the practice serves to short circuit the impact such mind activity might otherwise have one one's mood or perception of oneself. Also, the opportunity to carve out time in one's busy schedule to slow down and tune into one's internal state is viewed as important mental hygiene (Khong, 2009).

At present, the bulk of mindfulness research evaluates the benefits of formal mindfulness practice. Additionally, as shall be seen, most evidence-supported treatments are based on meditation-based programs. However, there are also very effective treatments that make little use of formal meditation. The intention here is to generalize the skills learned during formal practices to everyday life. This is achieved through combining formal meditation practice with informal mindfulness practice.

Informal practice. Informal mindfulness practice includes bringing full awareness to simple tasks such as laundry, eating, or bathing. During informal practice, the client is encouraged to incorporate skills learned during formal meditation, such as

awareness to the present moment, using the breath as an anchor, and taking note of when one's attention has shifted to streams of thought, worries, or rumination (Bishop et al., 2003). The idea is that with formal practice, individuals get better at applying the same concepts of nonjudgment and nonreactivity to everyday living. Therefore, the goal is not only to become better at meditating in silence for an extended period but to also embody this mindfulness mode in daily life.

State/trait mindfulness. In addition to mindfulness as a skill, researchers have also defined mindfulness in terms of it being a trait or a state induced and maintained through regular practice. Most measures of trait and state mindfulness take the form of self-report based scales. These scales have been used in clinical and research settings to assess the outcomes of regular meditators and non-meditators at the neurobiological, subjective, and behavioral levels.

It seems as if mindfulness might be more of a state rather than a trait because it deduces a transitory nature, which is dependent on purposeful attention and openness to experience (Bishop et al., 2003). Once attention is no longer regulated in this manner, mindfulness will come to an end. Several self-report questionnaires exist that measure a state-like quality of mindfulness. For example, The Toronto Mindfulness Scale (TMS) is a 13-item scale that asks individuals to reflect on a previous meditation session and rate the extent that each statement describes their experience (Lau et al., 2006).

Other researchers view mindfulness as a trait-like tendency to be mindful in daily life. Self-report scales exist that measure trait or dispositional mindfulness. For example, the Mindful Attention Awareness Scale (MAAS) is a 15-item scale designed to assess a core characteristic of dispositional mindfulness, which is awareness and attention to what

is taking place in the present (Brown & Ryan, 2003). Other widely used scales measuring trait mindfulness include the Freiburg Mindfulness Inventory (FMI), Kentucky Inventory of Mindfulness Skills (KIMS), Cognitive and Affective Mindfulness Scale (CAMS), Mindfulness Questionnaire (MQ), Revised Cognitive and Affective Mindfulness Scale (CAMS-R), and the Philadelphia Mindfulness Scale (PHLMS).

Baer, Smith, Hopkins, Krietemeyer and Toney (2006) created the Five Facets of Mindfulness Questionnaire (FFMQ) through an exploratory factor analysis of the most commonly used mindfulness questionnaires. The five facets include nonreactivity, observing, acting with awareness, describing, and nonjudging. These distinct facets are thought to embody the essence of mindfulness as a multifaceted trait. Each trait can be isolated and studied to further understand the underlying mechanisms of mindfulness. Overall**,** in clinical practice, mindfulness is proposed as a skill, with the aim of increasing one's ability to achieve states and traits of mindfulness. As with learning any skill, emphasis is placed on fostering client repeated practice events to develop and maintain proficiency.

Overview of the Utility and Effectiveness of Mindfulness

The aim of promoting mindfulness skills, states, and traits is fueled by the abundant research linking mindfulness to positive mental health outcomes. The benefits of mindfulness can be assessed and identified at subjective, behavioral, and neurobiological levels. In this section, some of the research is described for each.

Subjective Measures

Many studies to date have reported on correlations between self-reported mindfulness and psychological health. Trait mindfulness is associated with higher levels

of self-satisfaction (Brown & Ryan, 2003), agreeableness (Thompson & Watz, 2007), conscientiousness (Giluk, 2009; Thompson & Waltz, 2007), vitality (Brown & Ryan, 2003), self-esteem (Brown & Ryan, 2003; Rasmussen & Pidgeon, 2010), empathy (Dekeyser, Raes, Leijssen, Leysen, & Dewulf, 2008), sense of autonomy (Brown & Ryan, 2003), competence (Brown & Ryan, 2003), optimism (Brown & Ryan, 2003), and pleasant affect (Brown & Ryan, 2003).

Researchers have also shown a negative correlation with self-reported mindfulness and depression (Brown & Ryan, 2003; Cash & Whittingham, 2010), neuroticism (Dekeyser et al., 2008; Giluk, 2009), absent-mindedness (Herndon, 2008), dissociation (Baer et al., 2006; Walach et al., 2006), rumination (Raes & Williams, 2010), cognitive reactivity (Raes, Dewulf, Van Heeringen, & Williams, 2009), social anxiety (Brown & Ryan, 2003; Dekeyser et al., 2008; Rasmussen & Pidgeon, 2010), difficulties in emotion regulation (Baer et al., 2006), experiential avoidance (Baer et al., 2004), alexithymia (Baer et al., 2004), intensity of delusional experience in the context of psychosis (Chadwick et al., 2008), and general psychological symptoms (Baer et al., 2006).

Finally, regular meditators have been found to score significantly higher on levels of mindfulness, self-compassion, and overall sense of well-being when compared to non-meditators. Reciprocally, meditators score significantly lower on levels of psychological symptoms, rumination, thought suppression, fear of emotion, and difficulties with emotion regulation (Baer et al., 2008; Josefsson, Larsman, Broberg, & Lundh, 2011, Lykins & Baer, 2009;). Overall, research from correlational studies on subjective

measures suggests mindfulness to be positively associated with a variety of indicators of psychological heath.

Behavioral Measures

Researchers have examined the long-term and immediate effects of mindfulness interventions. When examining these effects, researchers use behavioral measures in which they measure the changes in frequency, duration, or intensity of a behavior to test the proposed mechanism of action. The inherent subjectivity of mindfulness may lead to insufficient results when using behavioral measures alone. Therefore, studies combine the use of behavioral measures and self-report scales to better understand the footings, processes, and outcomes of mindfulness.

Attentional processes. Hodgins and Adair (2010) compared visual attention processing in adult meditators and non-meditators on behavioral measures of change blindness, concentration, perspective shifting, selective attention, and sustained inattentional blindness. The study showed that regular meditation is associated with more accurate, efficient, and flexible visual attentional processing which is noticed during meditation as well as extending to other contexts separate from meditation practice. Other studies have compared experienced meditators versus non-experienced and found attentional benefits associated with cognitive flexibility, attentional functioning, and stronger engagement in emotional processing (Moore & Malinowski, 2009; Hölzel et al., 2007).

Avoidance behaviors. It has also been hypothesized that mindfulness meditation training increases acceptance of and willingness to tolerate uncomfortable emotions, as well as recover faster from negative emotional events (Eifert & Heffner, 2003; Hayes,

Strosahl, & Wilson, 1999; Kabat-Zinn, 1990). Thus, avoidance has been used as a behavioral measure of willingness to test this proposed mechanism of action. This measure is of importance because this style of coping is critical to the development and maintenance of psychopathology (Hayes et al., 1996; Hayes et al., 2004; Hays, Strosahld, & Wilson, 1999). Avoidance strategies are prevalent because they provide relief through negative reinforcement in the short term. However, studies have also found that avoiding an unwanted event or experience leads to a paradoxical increase in the frequency, severity, or accessibly of that unwanted event (Clark, Ball, & Pape, 1991; Gold & Wegner, 1995; Wegner, Schneider, Carter, & White, 1987; Wegner, Schneider, Knutson, & McMahon, 1991). Therefore, avoidance strategies are maladaptive and are positively correlated with a variety of pathology, including anxiety and depression (Kashdan et al., 2006; Roemer, Salters, Raffa, & Orsillo, 2005; Tull, Gratz, Salters, & Roemer, 2004), post-traumatic stress (Marx & Sloan, 2005), and substance abuse (Stewart, Zvolensky, & Eifert, 2002).

Several studies found that mindfulness meditation training does facilitate less emotional reactivity and more willingness to participate in emotionally distressing tasks (Arch & Craske; 2006; Campbell-Sills, Barlow, Brown, & Hofmann, 2006, Erisman & Roemer, 2010;). Therefore, it is proposed that individuals who mediate are more willing to face their fears and tolerate distress rather than engage in habitual avoidance patterns.

Laboratory studies have also found that brief mindfulness training can have immediate positive effects on coping with dysphoric mood. Studies have demonstrated that instructions to practice mindfulness of thoughts and feelings following dysphoric mood induction was found to be more effective then rumination or no direction in

reducing negative mood states in healthy college students (Broderick, 2005), currently depressed individuals (Huffziger & Kuehner, 2009), and previously depressed individuals (Singer & Dobson, 2007).

Addictive behaviors. Bowen and Marlatt (2009) investigated the effects of a brief mindfulness intervention on smoking behavior and found that individuals in the mindfulness group smoked significantly fewer cigarettes over a seven day follow up period as compared to individuals in the control group. Another study extended these findings by comparing the effectiveness of using suppression versus a mindfulness strategy. The researchers found that although both groups decreased in self-reported smoking behavior and increased self-efficacy, only individuals in the mindfulness group reported significant decreases in negative affect, depressive symptoms, and marginal decreases in nicotine dependence (Rogojanski, Vettese, & Antony, 2011).

Rumination. Studies have also demonstrated mindfulness to reduce ruminative behavior by encouraging individuals to view negative thoughts as events rather than actual reflections of reality, thus reducing the underlying rumination (Bieling et al., 2012; Hargus, Crane, Barnhofer, & Williams, 2010; Teasdale et al., 2002). Fresco et al. (2007) suggest that decentering leads to better coping strategies and may lead to better clinical outcomes such as lower rates of depressive relapse. By taking a decentered position, individuals are better able to act in the present rather than react per faulty beliefs.

Evidence supports these propositions. Data from a randomized controlled trial (RCT) examining the effects of a one-month mindfulness meditation versus somatic relaxation training suggest that brief mindfulness meditation training may reduce distress and improve mood in its ability to reduce the occurrence of distractive and ruminative

thoughts and behaviors (Jain et al., 2007). The study found in a group of 83 students reporting symptoms of distress that both the meditation and relaxation groups experienced significant decreases in distress and increases in positive mood states over time when compared to the control group. However, the meditation group showed larger effect size for positive states of mind then the relaxation group and demonstrated significant pre-post decreases in both distractive and ruminative thoughts and behaviors when compared to the control group (Jain et al., 2007). Preliminary evidence from other studies also suggests that mindfulness training leads to increases in metacognitive awareness (Hargus et al., 2010; Teasdale et al., 2002) and reductions in ruminative behaviors (Ramel, Goldin, Carmona, & McQuaid, 2004).

Overall, it is observed from these studies of behavioral measures that mindfulness training may lead to psychological improvements through the enhancement of better coping strategies and decreases in maladaptive behaviors.

Neurobiological Measures

To understand the biological underpinnings of mindfulness, researchers have begun to investigate neural mechanisms of mindfulness from the use of neuroimaging studies. These studies are providing insight into the neural processes and structural changes in the brain associated with the practice of mindfulness. Beneficial changes have been found following as little as eight weeks of daily practice. Changes include increased gray matter density in the hippocampus, which is known to be important for learning and memory (Luders et al., 2009; Luders et al., 2013; Holzel et al., 2011, Wells et al., 2013;), decreased grey matter density in the amygdala, which plays a role in anxiety and stress (Desbordes et al., 2012; Goldin & Gross, 2010; Lutz et al., 2014), and thickening in the

cerebral cortex in the prefrontal cortex, which is responsible for higher cognitive executive functions (Hasenkamp & Barsalou, 2012; Holzel et al., 2013; Taylor et al., 2013; Zeidan et al., 2014.). Creswell et al. (2007) investigated whether trait mindfulness is associated with enhanced neural regulation of affect during an affect labeling versus gender labeling control task. The study found an association between dispositional mindfulness and greater widespread PFC activation and attenuated amygdala responses after exposure to negative stimuli. Therefore, as evident in prefrontal cortical regulation, mindfulness may be associated with enhancements in these neural affect regulation pathways.

When compared to non-meditators, meditators are found to have increased thickness and activation in brain regions concerned with attention, interoception and sensory processing, as well as greater concentration of gray matter in areas found to be active during meditation (Hölzel et al., 2008; Lazar et al., 2005). This is similar to the brains of jugglers with many years of experience that have enlarged sections of the brain responsible for tracking objects in space. The same structural changes will occur in individuals who regularly practice mindfulness. In sum, the more consistently one practices, the more likely one will acquire the structural benefits associated with mindfulness.

Training and fine-tuning attention skills are seen to be central to the conceptualization of mindfulness practice. Therefore, researchers have investigated the neural mechanisms associated with mindfulness related attentional functioning. Three neural networks are thought to play a role in the attention process, which are the alerting, orienting, and executive networks (Posner & Rothbart, 2007; Raz & Buhle, 2006).

Studies have found enhancements through neural mechanisms involved in all three networks, which include attention-related parietal cortical regions, ventral posterior medial cortex (vPMC), temporoparietal junction (TPJ), cortical midline structures (CMS), temporal cortex, sensorimotor cortex, and basal ganglia (Goldin et al., 2013; Kozasa et al., 2012; Pagnoni, 2012). Also, a neural network, the default mode network, is activated whenever the mind wanders and attention involuntarily drifts away. This network entails the posterior cingulate cortex, the medial prefrontal cortex, the posterior lateral parietal/temporal cortices, and the parahippocampal gyrus (Buckner et al., 2008; Hasenkamp et al., 2012; Mason et al., 2007). Brewer et al. (2011) from Yale University found that these regions were relatively deactivated in the brains of experienced meditators versus meditation-naïve controls. Furthermore, functional connectivity analysis revealed in experienced meditators stronger coupling between the posterior cingulate, dorsal anterior cingulate, and dorsolateral prefrontal cortices that are regions previously linked to self-monitoring and cognitive control.

Finally, neuroimaging studies have also found increased activity in the left prefrontal cortex in meditators when compared to non-meditators, which is regarded as a predictor of happiness and wellbeing (Farb et al., 2010; Grimm et al., 2009; Heinzel et al., 2005). In conclusion, there is a clear convergence of findings that suggests mindfulness is positively associated with psychological health and that training in mindfulness may bring about positive psychological effects. Therefore, to optimize its utility and effectiveness, mindfulness has been integrated into manualized treatments and transformed into empirically supported treatments (EST). These treatments will be discussed in the next section.

Integrating Mindfulness into Empirically Supported Treatments (ESTs)

Cognitive Behavioral Therapy (CBT)

MB-ESTs have taken root in the cognitive behavioral tradition. As the third wave of CBT, MB-ESTs implement behaviorally based interventions that involve therapist-client collaboration for solving clearly identifiable and achievable goals (Hofmann & Asmundson, 2008). Marsha Linehan created one of the first MB-ESTs, dialectical behavior therapy (DBT). While treating chronically suicidal patients, Linehan (1993) found the traditional procedures of CBT (i.e. challenging the logical and empirical validity of beliefs) was experienced as intolerable and invalidating in this population. She found that adding more validation and teaching clients to practice mindfulness made the change strategies of CBT more palatable. Validation is the process of communicating to clients that their attempts to self soothe by self-injurious or self-destructive behavior made sense given the context of their current life situation. Since DBT, the principles of applying change-oriented interventions in the context of acceptance have taken root in the other empirically supported treatments, which are all linked to CBT.

Compatibility of mindfulness and CBT. It is argued that the MB-ESTs are rooted in CBT because of the natural fit that exists between mindfulness and CBT, and that CBT is more amendable to measurement.

Natural fit. Stemming from Buddhist philosophy, mindfulness practice facilitates one's ability to observe the nature of one's mind and take a de-centered approach to internal experience. The goal of both mindfulness and CBT is to distance oneself from thoughts and feelings and to find a position where these habitual thinking and feeling

patterns hold less weight, thereby making the individual less susceptible to being drawn into them. This contrasts with other theoretical orientations, such as psychodynamic and narrative therapy, in which the content is the direct focus of the intervention. Therefore, the very roots of mindfulness in regards to stepping outside of one's experience and noticing thoughts as thoughts seamlessly dovetails with CBT. While there is a lot of value in utilizing other orientations and mindfulness, overall the traditions of mindfulness and CBT seem to be a more natural fit.

Amendable to measurement. Many clinicians from other theoretical orientations argue that CBT is simply more amenable to measurement, which is why it is touted as the treatment of choice. This is an empirical question, of course, which is beyond the scope of this inquiry. At present, we can only turn to the available evidence. Considerable effort was made to find evidence to support other emerging orientations that utilize mindfulness. While authors have discussed and proposed the integration of mindfulness into other therapeutic practices (Epstein, 1995; Mace, 2007; Safran, 2003), no protocols were found that utilize mindfulness outside of the cognitive behavioral tradition. Therefore, due to the empirical robustness required of ESTs, mindfulness-based CBT remains today as the treatment of choice for practitioners.

Mindfulness-Based Empirically Supported Treatments (MB-ESTs)

There are currently six mindfulness-based treatments which qualify as evidence supported treatments (ESTs). A summary of the MB-ESTs, target populations, and developers may be seen in Table C. This class of empirically supported treatments are being applied to a wide range of psychiatric symptoms in clinical and research settings. A comprehensive review of the research base would be beyond the scope of this work;

Therefore, each MB-EST will be introduced and only a brief review of latest research for each intervention provided.

Formal MB-ESTs

Within the context of the MB-ESTs, the treatments broadly fall into two camps: primarily formal or informal based mindfulness treatments. The formal meditation based MB-ESTs are mindfulness-based stress reduction (MBSR), mindfulness-based cognitive therapy (MBCT), mindfulness-based eating awareness training (MB-EAT), and mindfulness-based relapse prevention (MBRP).

Mindfulness-based stress reduction (MBSR). Mindfulness-based stress reduction (MBSR) was developed in 1979 by Jon Kabat-Zinn and has the most robust research base and empirical support. MBSR was the first mindfulness-based intervention implemented in a behavioral medicine setting. It is a non-pathologizing, education-based program, intended for delivery in a group setting (McCown, Reibel, & Micozzi, 2010). The objective of the program is to teach individuals basic mindfulness meditation techniques for facing, exploring, and relieving suffering from physical and mental health difficulties. MBSR was originally developed for patients dealing with chronic pain and stress-related conditions (Baer, 2006). The class is taught over an eight to ten-week period, meeting one time per week for about 2.5 hours and one all-day retreat situated at the end of the program. Mindfulness practice in MBSR includes primarily formal meditation practices (body scan, sitting meditation, hatha yoga, and walking meditation), with some informal exercises such as mindful eating (Baer, 2006). Unlike traditional CBT, cognitive and behavioral change strategies are not emphasized in MBSR. Instead, issues of mindfulness practice, such as attention wandering, are the focal point of each

class. Adopting an attitude of acceptance rather than change is a central feature of MBSR (Baer, 2006).

MBSR has been shown to be effective for reducing symptoms associated with mood and anxiety disorders, such as rumination and distress (Teasdale et al., 2000), increased perceptions of control and decreased anxiety in generalized anxiety disorder (Grossman et al., 2004), and decrease in occurrence of binge eating among women with binge eating disorder (Kristeller & Hallett, 1999). Other studies have investigated the outcomes of MBSR on higher functioning individuals and have found improved stress reactivity in health subjects (Hoge, 2013) and significant improvements in mental distress and subjective well-being in medical and psychology students (De Vibe, 2013). Finally, MBSR has been studied with individuals diagnosed with medical diseases and have found a decrease in pain symptoms in chronic pain patients (Kabat-Zinn et al., 1985), decreased medical, mood, and physiological signs of stress among individuals diagnosed with cancer (Speca et al., 2000), and finally, improvements in patients with psoriasis, fibromyalgia, and chronic fatigue syndrome (Baer, 2003; Grossman et al., 2004; Kabat-Zinn, Massion, Hebert, & Rosenbaum, 1998; Surawc, Roberts, & Silver, 2005).

Mindfulness-based cognitive therapy (MBCT). Mindfulness-based cognitive therapy (MBCT) was derived from the MBSR program, and the delivery of the program is largely the same. The class is taught in a group format, over an eight-week period, with a weekly two-hour class, and one all-day class after the fifth week. As with the MBSR program, much of the work is done outside of the sessions because the participants are assigned guided meditations to practice daily (Segal et al., 2013). The informal and formal practices of mindfulness found in MBSR are also utilized in MBCT (Baer, 2006).

However, didactics in MBCT focus more on the nature of depression rather than on stress. Also, a unique mindfulness exercise used in MBCT is the three-minute breathing space. This exercise is a mini-meditation and serves as a bridge between the longer meditations and the demands of day-to-day life to encourage regular practice (Baer, 2006). Mindfulness-based cognitive therapy also reflects principles of cognitive therapy. However, it takes a more decentered approach to internal experience, rather than changing it, per se (Baer, 2006).

RCTs have found MBCT to significantly reduce the likelihood of depressive relapse in patients in remission from depression (Bondolfi et al., 2010; Crane et al., 2008; Kuyken et al., 2008; Teasdale et al., 2000; Teasdale et al., 2003 Williams et al., 2000). In current clinical populations, MBCT has been found effective for patients with depression and a history of suicidal ideation or behavior (Barnhofer et al., 2009; Hargus et al., 2010), patients with unipolar and bipolar disorders (Williams et al., 2008), patients with social phobia (Piet et al., 2010), and patients with epilepsy and depressive symptoms (Thompson et al., 2010). MBCT has also shown to reduce anxiety and depressive symptoms in GAD and panic disorder (Evans et al., 2008; Wong et al., 2011), improve emotional reactivity to social stress in recurrent depression (Britton, Shahar, Szepsenwol, & Jacobs, 2012), improve symptoms with treatment-resistant depression (Kenny & Williams, 2007), depressive relapse prevention (Mathew, Whitford & Denson, 2010), as well as treat individuals with bipolar disorder who have a high risk of suicide (Williams et al., 2008).

Mindfulness-based eating awareness training (MB-EAT). Mindfulness-based eating awareness training (MB-EAT) is a program developed to treat unhealthy eating

patterns such as mindless eating, emotional eating, and other food-related issues. MB-EAT combines elements of cognitive behavioral therapy (CBT) and mindfulness-based stress reduction (MBSR), in addition to offering guided eating meditations. Similar to the format of MBSR, MB-EAT is delivered in a group setting and each session focuses on mindfulness practice. Mindfulness in MB-EAT is taught to increase nonjudgmental awareness of hunger and satiety cues as well as to unlock automatic eating patterns. Mini-meditation is a new practice introduced by MB-EAT and involves having patients stop at key points of the day, such as during meal and snack time, to observe nonjudgmentally their thoughts and feelings.

The theoretical basis of MB-EAT is formed from an emotional dysregulation model where there is a vicious cycle of binge eating, emotional eating, and chronic dieting that contribute to as well as cause negative self-evaluation, dysphoria, and deprivation (Kristeller et al., 2013). MB-EAT aims to interrupt this vicious cycle and help the patient to restore a healthy relationship to food. MB-EAT has been found effective in the treatment of binge eating disorder (Kristeller et al., 2013; Miller et al., 2013). When compared to an established diabetes self-management education program, MB-EAT proved to be an equally effective option for losing weight and significantly lowering long-term blood sugar levels for individuals with Type 2 diabetes (Miller et al., 2013).

Mindfulness-based relapse prevention (MBRP). Mindfulness-based relapse prevention (MBRP) combines tools of cognitive behavioral therapy, relapse prevention, and mindfulness to help individuals suffering from substance dependence, substance use, and related symptoms of depression and anxiety. MBRP's content resembles the content

taught in MBCT. MBRP offers skills in cognitive behavioral relapse prevention and mindfulness practice. Just as in the other treatments, individuals meditate for 30-45 minutes in class sessions and are assigned 45 minutes of daily mindfulness practice outside of class. Mindfulness is taught as a tool to tackle avoidance through separating and identifying thoughts, feelings, and behaviors. By having clients "investigate" these separate components of experience, clients are less likely to become "overwhelmed" by negative states and thus be better able to engage in healthy coping strategies (Witkiewtiz & Bowen, 2010). Clients also develop a nonjudgmental approach to negative affective states, thus learning to urge surf in the presence of negative affect. Over time, less emotional reactivity to negative affect will lead to more willingness to experience negative affect without using, thus disengaging the conditioned response of craving in the presence of emotional discomfort. Thus, MBRP aims to maintain treatment gains for individuals in aftercare following initial treatment for substance use disorders by reducing the risk and number of occurrences of relapse. MBRP has been empirically validated for substance abuse and substance dependence and is considered a worthy alternative to the 12-step program (Barnhofer, et al., 2009; Bowen et al., 2006; Bowen et al., 2009; Witkiewitz et al., 2012, 2013).

Informal MB-ESTs

In the other camp are the informal based mindfulness interventions. These interventions use experiential exercises and short mindfulness practices, but place far less emphasis on meditation per se. They also make use other exercises, such as metaphor, story, poetry, and a variety of experiential exercises to teach mindfulness. These

interventions include dialectical behavior therapy (DBT), and acceptance and commitment therapy (ACT).

Dialectical behavior therapy (DBT). DBT was originally developed to treat chronically suicidal behavior in borderline personality disorder (BPD), and this remains the strongest evidence base for the treatment. However, since emotion dysregulation is an underlying cause in BPD and many other disorders such as anxiety disorders, major depression, and eating disorders, DBT has been expanded to treat a wide range of pathology (Bedics et al., 2013). Similar to other MB-ESTs, DBT places an emphasis on the need for a balance of acceptance with change strategies.

DBT is a six-month to one-year psychosocial skills training intervention. DBT has four primary treatment components which serve to support the acquisition, development, and generalization of four skills categories:

1. Weekly individual therapy with a primary therapist;

2. Skills training group facilitated by two co-leaders;

3. Between-session phone coaching to increase generalization of skills;

4. Therapist attendance in weekly team consultation (Linehan, 1993).

Mindfulness is the core skill in DBT and is woven throughout three other skills training modules (Interpersonal Skills, Emotion Regulation Skills, and Distress Tolerance Skills). In DBT, mindfulness is taught with far less emphasis on formal mediation practice. Instead the practice is emphasized as a skill in daily living. The aim of mindfulness in DBT is to learn to practice a balance between emotional and logical mind states. This balance is proposed to increase the accessibility of *Wise Mind*, which is a state in which better decisions can be made. Mindfulness is described in terms of *what*

and *how skills* which incorporate the basic practices of formal traditional practices. What-skills are practiced sequentially, and include: Observe, describe, and participate. How-skills are the attitudinal qualities of practicing the what-skills, and are practiced in tandem. These skills include: Non-judgmentally, one-mindfully, and effectively. The what-skills describe what to do, and the how-skills describe how one practices the what-skills (Linehan, 2015).

Randomized controlled trails (RTCs) have found DBT to be effective in treating a wide range of conditions including chronically parasuicidal patients with BPD (Koons et al., 2001; Linehan et al, 1991; Linehan et al., 1993; Linehan et al., 1994; Linehan et al., 1999; Linehan et al., 2006; Turner, 2000; Verheul et al., 2003), patients with comorbid BPD and substance dependence (Harned et al., 2009; Linehan et al., 1999; Linehan et al., 2002), depressed patients (Lynch et al., 2003), and patients with co-morbid depression and personality disorders (Lynch et al., 2007). Modifications of DBT have been found to be effective in treating binge eating disorder (Telch et al., 2001), bulimia (Safer et al., 2001), chronic depression in the elderly (Lynch et al., 2003), and increasing hope for community mental patients with heterogeneous diagnoses (Ritschel, Cheavens, & Nelson, 2012).

Acceptance and commitment therapy (ACT). Acceptance and commitment therapy (ACT) was developed in the late 1980s and combines value-based behavioral change with mindfulness practice to increase tolerance of unpleasant internal experiences (Hayes, 2006). Unlike other MB-ESTs, ACT does not follow a single protocol and does not target a specific diagnosis. Rather, it offers a transdiagnositc means of understanding and targeting psychopathology which is believed to stem from psychological rigidity.

Thus, the goal of ACT is to increase psychological flexibility. Psychological flexibility is defined as the ability to be open, focused on the present, aware, and to change when it serves as your best option (Hayes, 2006). ACT uses metaphors, experimental exercises, and logical paradox to teach six core psychological skills. The six core skills of ACT are divided per acceptance and change processes. Acceptance processes include self as context, cognitive defusion, and acceptance. Change skills and processes include committed action, values identification, and being present (Hayes, 2006). These skills are taught flexibly and iteratively, based on client presentation and needs, with the ultimate goal of increasing psychological flexibility (Baer, 2006).

Randomized controlled trails (RCTs) have found ACT to be an effective option when treating anxiety disorders such as social anxiety disorder (Kocovski, Fleming, Hawley, Huta, & Antony, 2013), mixed anxiety disorders (Arch et al., 2012), trichotillomania (Woods et al., 2006), and anxious older adults (Wetherell et al., 2011). There is also strong evidence to support the use of ACT in treating depressed patients (Zettle & Hayes, 1986; Zettle & Rasins, 1989), reducing substance use and dependence in nicotine-dependent and polysubstance-abusing patients (Gifford et al., 2004; Hayes et al., 2004), as well as outpatients with mixed symptoms and diagnoses (Forman et al., 2007; Lappaliainen et al., 2007). Additionally, repeated RCTs have found ACT to be more effective than TAU in improving affective symptoms, social functioning, symptom reporting, and reducing rates of re-hospitalization among inpatients with psychosis (Bach & Hayes, 2002; Gaudiano & Herbert, 2006).

Summary

Everyday new domains of mindfulness are emerging and are proving to be

beneficial for a number of different diagnoses and health related problems. However, to address them all would be beyond the scope of this study. Therefore, a few of note are Mindfulness Based Relationship Enhancement (MBRE) for couples, Mindfulness Based Chronic Pain Management (MBCPM) for pain patients, and Mindfulness Based Dementia Care (MBDC), for caretakers of patients with dementia. Although promising, these treatments were not included in the present study because they do not have the scientific rigor required of inclusion criteria. Additionally, Metacognitive Therapy (MCT), Compassion Focused Therapy (CFT), and Integrative Behavioral Couples Therapy (IBCT) are other treatments that describe and target similar processes of MB-ESTs and have a strong research base as well. However, these treatments were not included because their approach differs in major ways, and they are not self-described as mindfulness-based treatments.

As noted in chapter one, APA's mandate on EBPP generated a long-standing debate regarding the rigidity of protocol driven treatments versus the flexibility of clinical intuition. This gap may be bridged by use a common elements approach.

CHAPTER 3

METHOD

The present qualitative study conducted a content analysis of the manuals of the MB-ESTs. As noted, the goal of the content analysis was to discern the common elements of the MB-ESTs, which may be used as clinical benchmarks to facilitate more consistent clinical decision-making in accordance with the APA's mandate on Evidence Based Practice in Psychology (EBPP). The methodology of the content analysis was derived from previous similar common elements research (Chorpita et al., 2005; Garland et al., 2008; Fielding, 2009; Strand, Hansen,& Courtney, 2013). Drs. Chorpita, Garland, and Fielding were consulted to determine the most effective and parsimonious design. The methodology is outlined below.

Units of Analysis

The MB-ESTs selected for the present study were Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT), dialectical behavior therapy (DBT), acceptance and commitment therapy (ACT), Mindfulness-Based Eating Awareness Training (MB-EAT), and Mindfulness-Based Relapse Prevention (MBRP). The criteria for selecting treatment materials for each of these interventions included (a) seminal books written by the developer(s) that describe the treatment, (b) treatment manuals co-authored by the developer(s) of the treatment, and (c) those manuals cited as used in at least one published empirical study in a peer reviewed journal (Fielding, 2009).

Developers were defined as those individuals who carried out the pilot studies, co-authored or authored the original treatment manuals, and strengthened distinct concepts and protocols (Garland et al., 2008). Since Fielding's study, the following changes were made:

1. Newer additions of materials replaced older versions.

2. Two additional recently validated treatment protocols were added to the analysis (MB-EAT and MBRP).

Therefore, the sample of the present study included six treatments with a total of eleven manuals to be coded. See Appendix A for list of included volumes.

Qualitative Content Analysis

The current study reflects qualitative content analysis research. A basic qualitative approach utilizes verbal and linguistic data to generate theory grounded in research (Strand et al., 2013). A content analysis is a modified qualitative approach which utilizes text documents as units of analysis (Zhang & Wildemuth, 2009). The present study differs from basic qualitative content analysis because the goal is not in the construction of theory but rather in the identification of categories or common elements. Crabtree and Miller (1992) propose that the analysis strategies in qualitative research can be viewed on a continuum ranging from "prefigured technical" on one extreme and "emergent intuitive" on the other extreme (p. 17). On the prefigured technical side, strategies are technical, scientific, and standardized, in which a researcher assumes a more objective stance, whereas on the emergent intuitive side, strategies rely more heavily on a researcher's intuition and interpretation (Marshal & Rossman, 2006).

The present analysis most closely reflects a "template analysis strategy," (Miller & Crabtree, 1992, p. 17) which stands along the continuum, yet is more prefigured then emergent. This strategy starts the analysis with a set of pre-existing codes to guide the coding process. This strategy is popular in the health sciences, however can limit the analysis due to the ability of open coding to fully capture the experience of interviewees represented in traditional qualitative research. Therefore, Creswell (2007) recommends that researchers be open to additional codes that may emerge during the analysis if a prefigured coding scheme is to be utilized. Considering this, an a priori code entitled *emergent themes* was also included in the initial coding stage of the present study. The emergent themes code included any coded segments that do not fit the prefigured codes, but which are still presumed to be important to the study. The template analysis strategy is recommended when there is a theoretical perspective already attached to the study. Thus, pre-set codes have been specified to target specific aspects of the text. This is among the most efficient and focused types of qualitative interpretation analytic styles.

Regardless of analytic style, it is generally recommended when conducting qualitative content analysis to start with at least five or six provisional codes (often referred to as *a priori codes*) to begin the process of *lean coding* (Creswell, 2007). Lean coding is a process termed by Creswell (2007), which has the researcher start out with a short list of codes, to prevent over coding. As the database of content is reviewed and re-reviewed, the initials codes are expanded to around 30 codes, which will then be consolidated into five or six major themes. Creswell (2007) noticed that researchers who do not start coding with an initial list of pre-set codes struggle with reducing their overall

picture to five or six themes, which is customary for publication in peer reviewed journals.

The initial codes were derived from previous relevant research, theory, or literature, and were driven by the conceptual framework of the study. Research questions, problem areas, and prior knowledge of the subject matter or subject expertise of the researcher also helped create the initial codes. Although the template style began with a set of codes, the codes underwent revision as the analysis proceeded. This simultaneous collection of data and analysis for building a coherent interpretation represents the hallmark of all qualitative research (Marshal & Rossman, 2006). The researcher was guided by initial concepts, in which was shifted and modified as more data was collected and analyzed.

In sum, the goal of the study was to begin collecting data by dividing it into segments of information, which would correspond to the a priori categories. The a priori codes served as a gateway into the content to begin collecting data. In addition to the a priori codes, an emergent themes code was included to capture important information that did not fit an a priori category. Then the broad segments of information were expanded on and analyzed through open coding. Open coding consolidated the initial codes into about 20 codes due to overlap and redundancy. Finally, the 20 codes were collapsed into five to seven major themes or common elements for the present study following completion of the final analytic review (Creswell, 2007). The exact behavioral steps for the coding process are outlined in the subsequent Procedures for A Priori Coding section.

A Priori Codes

Treatment categories. Since the objective of the study was to expand on previous common elements research, an a priori decision was made to code the manuals per preconceived categories derived from Garland's study (Garland et al., 2008). These categories included therapeutic content, treatment technique, aspects of the working alliance, and treatment parameters. Again, these categories offered an entry point to begin collecting data and organize it based on previous relevant research. Operational definitions of each category are described below.

Therapeutic content. Therapeutic content is defined as what is being conveyed (i.e. the information being conveyed in the treatment intervention). For example, therapeutic content may entail information, knowledge, or understanding that the therapist is trying to impart onto the client (Garland et al., 2008). Fielding (2009) similarly defined this category of elements as conceptual elements, which are elements based on a given treatment conceptualization. A specific example of therapeutic content cited in Garland's study is principles of positive reinforcement (Garland et al., 2008). Strand et al. (2012) similarly coded this content yet labeled it as an "intervention objective," which is "a specific therapeutic outcome the therapist intends to achieve through implementing a given set of practice elements in a given setting" (p. 339). The coder looked for words such as the goal is, the desired outcome is, or the purpose is, to determine if a statement or description would be coded as an intervention objective. In the present study, we will code per Garland's conceptualization and define categories based on her definition.

Treatment technique. Treatment techniques are defined as how the therapist conveys the therapeutic content to the client. These elements are also known as practice elements (Fielding, 2009). Practice elements are defined by Chorpita (2005) as a discrete clinical strategy, used as a part of a larger intervention plan, based on the assumption that it can be explicitly defined, reliably coded, and shared by various treatments. Practice elements are defined by their content, not by their length, periodicity, or location within the manual (Chorpita et al., 2005). Furthermore, Chorpita (2005) clarified that practice elements may be delivered simultaneously, such as in exposure and response prevention, delivered in one or over multiple sessions, and can be delivered in sequence, such as in cognitive restructuring followed by relaxation.

For a statement or description to have been coded as a practice element, it must have entailed observable clinician or client behaviors. Strand et al. (2013) defined their practice elements as "observable, concrete therapeutic procedures the therapist implements with the client or on behalf of the client (when acting in an advocacy role) with the intention of achieving one or more intervention objectives" (p. 339). Strand et al. (2012) agreed that for the statement or the description to be considered a practice element, the procedure, operation, strategy, or technique, needed to be observable.

Aspects of the working alliance. Another category utilized in the study entails elements that explicitly describe aspects of the therapist-client relationship. Garland et al. (2008) specifically focus on these elements in relation to the treatment plan. Examples that include attention to mutual agreement on therapy goals and establishing a therapeutic alliance would belong in this category (Garland et al., 2008).

Treatment parameters. This category is concrete to include elements of structure and topography. These include elements that describe the modality, frequency, duration of treatment, and intended population (Garland et al., 2008).

CBT elements. In addition to the four treatment categories, a priori codes also consisted of the core elements of cognitive behavioral therapy (CBT). Per Fielding's (2009) work on the common elements of MB-ESTs, since all the MB-ESTs to date are rooted in the cognitive behavioral tradition, it is important to parse out the elements specific to CBT versus elements unique to the MB-ESTs. Therefore, as the content is read through, elements that pertained to CBT were labeled accordingly, and were not included in the four broad treatment categories. While many CBT and MB-CBT elements overlapped, it was important to extrapolate those elements that were unique to the mindfulness-based interventions. Thus, the four broad treatment categories mainly captured elements unique to the MB-ESTs.

CBT-specific elements were derived from CBT books written by the developers of CBT (Beck, 1999; Beck, 1979). The elements were also derived from the items on the Cognitive Therapy Rating Scale (CTRS; Young & Beck, 1980), which is a treatment fidelity scale used to measure therapist adherence and competence to CBT. See Appendix B for the list of core elements of CBT with operational definitions. The CBT elements along with their operational definitions were input as separate codes.

Computer Software

The Atlas.ti 7.1.4 computer software was utilized in the coding process. Strand et al. (2013) used this software and found this type of computer assisted qualitative data analysis software to be very effective in handling large amounts of data. The data

reduction method this software offered was very straightforward and flexible due to its ability to readily insert new codes or categories alongside the coding process. Also, this program allowed for the constant refinement and revising of codes upon more in-depth reflection and consideration of initial codes (Strand et al., 2013). Essentially, it made the analytical process more apparent because it was more explicit and easier to report. Therefore, PDF versions of the MB-EST manuals were uploaded directly into the computer software program and were manually coded and analyzed there. The above codes along with their operational definitions were entered into the Atlas.ti software program. The Atlas.ti software assigned a separate color to each code to make the highlighted content in the document more distinguishable.

Procedures for A Priori Coding

The four broad treatment categories derived from Garland et al. (2008) – the core elements of CBT and a code for emergent themes – formed the foundation of the categorization matrix. Only manifest, not latent content was coded due to the dispute over whether covert meaning can be accurately coded in light of the considerable interpretation it involves (Elo & Kyngas, 2008). The a priori codes were mutually exclusive, which means that not one element was found in more than one category. Although the elements have synergistic value, the categories remained internally as homogeneous as possible and externally as heterogeneous as possible to ensure consistency of coding (Zhang & Wildemuth, 2009). Therefore, decision-making regarding which content pertained to which code was based on previous theoretical knowledge and consideration of the distinct nature of each code. In sum, the purpose of

utilizing categories in a content analysis was to "describe the phenomenon, increase understanding and generate knowledge" (Elo & Kyngas, 2007, p. 111).

Steps in the Analysis

The first step in the qualitative content analysis involved segmenting all the information in the manuals into the a priori treatment categories. To achieve this, a PDF version of each manual was uploaded into the Atlas.ti software program. Once uploaded, the document was accessed by double clicking the navigator on the left-hand side of the screen. Once opened, the document was displayed in the main screen. To the right of the main screen was a margin area that displayed quotation names and code names of each coded segment. To the right of the margin was the inspector, which allowed quotations to be renamed and notes or comments to be added to coded segments. Once the document was opened in the main screen, it was ready to be coded. The manuals was coded in the Atlas.ti program the same way one would do with a physical manual, which will be subsequently described in more detail. Once a data segment was found to match a code, then it was highlighted with the mouse, and the "add coding button" on the top of the screen was selected. A drop-down menu appeared with a list of the a priori codes or treatment categories and the desired code was clicked on and selected.

Once coded, the data segment was visibly highlighted with the color assigned to the code and the code name was displayed in the margin area. It is important to note that as data was coded, notes were entered and attached to each coded segment via the inspector. These notes described reactions to as well as other insights that emerged from the coded segments. These notes were vital to the analytic process because they proposed

new interpretations and connections with other data. Also, the notes pointed towards questions and issues to look for as further data was collected and coded.

Procedures for Emergent Coding

While it is useful to begin data collection with a priori coding, another set of codes emerged following examination of the data (Stemler, 2001). These emergent codes were concepts, ideas, relationships, and meanings that arose directly from the data (Cho & Lee, 2014). This approach is termed *emergent coding* because categories or codes are established from the data and differs from the a priori codes (Stemler, 2001). Emergent coding is appropriate to use when prior knowledge on the phenomenon of interest is fragmented or incomplete (Elo & Kyngas, 2008). Hence, codes, categories, or themes are drawn directly from the data (Cho & Lee, 2014).

Therefore, once all the manuals were read through once and coded per the a priori treatment categories and CBT elements, it was read through a second time, and an emergent coding process took place. Since we are only interested in the elements specific to the MB-EST treatments, this level of analysis was only performed on the coded content pertaining to the four treatment categories and the emergent themes category, and not the CBT only elements. Thus, emergent coding involved coding the elements specific to MB-ESTs within each of the four treatment categories as well as any information that came out of the a priori emergent themes code.

The first step in the emergent coding process involved visiting the code manager in the Atlas.ti program. Selecting the button “Code” from the main menu and then selecting “Show Code Manager” from the drop-down menu accessed the code manager, which contained the list of codes, code groups, comments for each code, as well as the

colors assigned to each code. For example, the code "Therapeutic Content" was double clicked to open a separate window entitled "Quotations for Therapeutic Content." This window contained a list of the coded segments with comments pertaining to that code. When clicked on, the coded segments were retrieved within the original context of the document or manual where it was found. This made it easy to locate the highlighted content within the manual by code.

A strength of qualitative research is the acknowledgment that data must always be understood in relation to the context of its conception. Therefore, being able to refer to the context of each quote and coded segment contributed to the strength of the study. This also made differentiation of sensible coding decisions more systematic and evident during data analysis due to the flexibility in referring to the context of each quote.

The content in this window was coded using new summarizing or emergent codes. The comments and notes that were attached to each coded segment helped in the creation of emergent codes. During this stage of emergent coding, the refinement of the coding scheme also took place. Upon review of the data, codes were added, collapsed, expanded on, or revised. Also, codes that did not work or conflated other ideas from different codes were either dropped or revised. Alternatively, codes that thrived in a way that resulted in too much data were broken down into sub-codes for the data to be better organized.

Essentially, emergent coding expanded on and consolidated the initial codes based on overlap and redundancy. The rule of thumb for this level of analysis was to make the codes fit the data rather than the data fit the codes. The procedures were not linear but rather done in a circular fashion as data was pulled from each source. Finally, it is

important to note that as data were coded, additional notes were added to each coded segment to assist in the final analytic process.

Final Analytic Review

The final analytic process began after all emergent coding was complete. This stage involved collapsing the emergent codes into five or six major themes. During this process, the emergent codes, content, and comments was perused for common themes as well as relationships. If codes when combined, were found to explain a larger theme or category, then the codes were consolidated and collapsed under a common heading name. This coding process has been referred to as axial coding, which involves grouping the codes to reflect commonalities in conceptual categories (Strauss & Corbin, 1998). The codes can cluster around points of interest, pertain to a central phenomenon, or for the present study, presume to be a common element.

Axial coding was accomplished in the computer software program by creating a new code that represented the broader theme and then dropping and pasting all the similar codes into that category. This process naturally entailed comparison between data headings, as well as decision-making through interpretation based on previous theoretical knowledge. There were several tools in the Atlas.ti software that assisted in this process. The Atlas.ti program has a concept-mapping feature which allows one to build visual networks of relationships between coded segments, notes, and codes. Therefore, this feature was utilized to visualize the relationships and make decisions regarding the relevance of each theme.

This process continued until theoretical saturation was reached. Theoretical saturation was reached when no new pertinent data seemed to emerge that either extended

or contradicted a category or heading (Strauss & Corbin, 1990). A theme was considered a common element if it was relevant to all MB-ESTs. Following the completion of the analytic process, the common elements of MB-ESTs were derived. We collapsed the emergent codes into seven major themes, or common elements, based on recommendations from past qualitative content analysis researchers (Creswell, 2007). The common elements found in the present study was also compared to those of Fielding's original work on this topic (2009). The last step in the iterative process involved assessing the consensual validity of the common elements by submitting to an expert panel for review.

Surveying Experts for Consensus

Bisson and colleagues (2010) used a Delphi technique, which recognizes the experience and knowledge of experts when empirical knowledge is incomplete to develop evidence-informed guidelines for intervention. Sburlati, Schniering, Lyneham, and Rapee (2011) also used a Dephi method, which they defined as a "procedure that draws together empirical evidence and iterative expert review to achieve consensus regarding effective and ineffective treatment approaches" (p. 91). The modified Delphi technique used by Garland (2008) was implemented to acquire expert consensus on the common elements found in the present study. Anders Ericsson (1993) found that to achieve mastery in a field, you must deliberately practice a skill for a total of 10,000 hours, which is equivalent to 10 years. Since several of the treatments have not been available for 10 years, individuals were identified as experts if they possessed at least five or more years of experience practicing with an MB-EST modality. In addition to the five-year requirement, to be considered an expert, individuals needed to possess at least

one of the following experiences: (a) those who have authored or co-authored an MB-ESTs study; (b) individuals formally trained by the founders of the treatment; (c) licensed psychologists who have been intensively trained and/or certified, if applicable, in a MB-EST.

Experts were recruited through personal communication and list serves that are available for each of the MB-ESTs (See Appendix B for recruitment sources). To facilitate and simplify expert involvement, an email was sent to experts directly that contained a link to the survey. Experts were able to submit the surveys electronically via Survey Monkey. On the survey, the common core elements were listed with brief working definitions. Experts were asked to rate whether they agreed or disagreed with the selection of each element as a common core element of the MB-ESTs. For the elements to be considered valid, each element must have been endorsed by at least 86% of the expert respondents (Garland et al., 2008). Garland's study (2008) had a total of seven expert respondents, and we exceeded our expectation of at least three expert respondents per mindfulness-based intervention for a total of twenty-four respondents. To prevent a long turn around delay, we requested experts to submit their responses within one month. After the month had passed, only surveys that were submitted within that time frame were analyzed. To keep experts alert to the submission deadline, weekly email reminders were sent out with the link to the survey and a reminder of the submission deadline. Acquiring expert consensus for the present study increased validity and reliability, as well as decreased researcher bias.

Multiple Coders

Consistent with other qualitative content analysis research, the present study included a second coder to minimize single coder bias. Due to the extensive amount of time required for this level of analysis, it was decided that the most efficient option would be to have the expert consultant, Lara Fielding, Psy.D., be the second coder. This expert is familiar with the treatment manuals and has been through a similar coding process. Although this has the potential to bias the findings, we minimized this bias by obtaining objective feedback from experts in the field.

Pages were randomly selected from each manual using a computer-based random number generator, titled Research Randomizer (Urbaniak & Plous, 2013). This computer-based program generates random numbers by use of a complex algorithm seeded by the computer's clock. The steps in this task involved multiplying the total number of pages for each manual by .10 to calculate the number of pages needed for a 10% sample of each manual. Per Lombard et al. (2004), a 10% sample of the total content should be sufficient in testing inter-coder reliability. Once the number of pages was calculated for each sample, that number was entered into the computer-based program for the amount of numbers needed per manual. Then the page range was entered, and from there a random set of numbers was generated per manual. For each manual, the page numbers that corresponded to the set of random numbers generated by the randomizer were exported into PDF version of each manual. These PDF versions of the manuals were given to Dr. Fielding to code in the Atlas.ti software using the same procedures listed previously.

Throughout the coding process, Dr. Fielding was consulted monthly to compare codes and discuss decisions leading up to the codes to determine the extent of agreement between coders. An 80% to 90% agreement constituted acceptable reliability for this study (Berends & Johnston, 2005; Ryan, 1999). Ultimately, resolutions on the common elements were achieved collaboratively and were then submitted to an expert panel for a final assessment of reliability and validity.

Limitation and Areas of Potential Bias

Limitations of this study include researcher bias and ineffectiveness of content analysis to test for casual relationships. It is important to note the potential for researcher bias in this study. Although a second coder was used, there is still potential for bias. Researcher bias may occur when deductively analyzing the data and inductively interpreting the analyses; therefore, it is possible that if the study is replicated using the same procedures, one might identify incongruent elements.

Another weakness of this study had to do with the fact that common elements are a test for frequency in the occurrence of the elements. This test for frequency is not a test of necessity for therapeutic change. Therefore, we cannot fully conclude that the presence of these common elements will be sufficient to produce therapeutic change.

Summary

The aim of the present study is to resolve the research-practice gap in the integration of mindfulness into EBPP by employing a common elements approach to the manuals of mindfulness-based interventions. The common elements can serve as a bridge between rigid adherence to the manuals and inconsistent clinical decision-making (Chorpita et al., 2005). A precedent for the use of this method has been set by current

research on the common elements approach to evidence based practice. This work expands Fielding's (2009) study of the common elements specifically of the effective mindfulness-based treatments. With the current methodological adaptations and refinements and the addition of an increased data set, the current study offers an opportunity to further validate and derive the core constituents of effective mindfulness-based treatment.

CHAPTER 4

RESULTS

The first goal of the study was to derive the common elements of the mindfulness-based empirically supported treatments (MB-ESTs). A qualitative content analysis was employed on the manuals of the six MB-ESTs (MBSR, MBCT, DBT, ACT, MB-EAT, and MBRP). The manuals from which the analysis was drawn can be found in Appendix A. A total of seven common elements were identified from the qualitative content analysis and are presented in Table 1. This chapter will provide operational definitions and examples of the elements from each MB-EST presented in tables.

The second goal of the analysis was to investigate the consensual validity of the common elements using an expert survey. Ninety-four surveys were received, 70 of which qualified as expert respondents. The treatment developers were contacted through personal email and requested to participate in the study. Due to confidentiality and anonymity, it is uncertain how many treatment developers participated. However, Dr. Zettle of MBCT and Dr. Bowen of MBRP confirmed their participation, and we are grateful for their contribution. It is worth mentioning that a survey was received that endorsed "strongly disagree" for every common element. This respondent represents the 1% "strongly disagree" for every element. This respondent elected to not include his rationale in the comments section. The results should be interpreted in lieu of this finding.

Overall, results from the expert survey indicate strong support of each element as common and important to mindfulness-based treatment. In the following sections, the seven elements are operationally defined, and examples are provided from each MB-EST. In addition, findings from the expert survey are reviewed. The Chapter 5 will discuss implications of common elements for clinical integration, clinical training, and research, and will conclude with suggestions for improvements to future analyses.

Element 1: Balance Acceptance and Change

Operational Definition

When providing mindfulness-based treatment, the clinician balances traditional cognitive behavioral therapy (CBT) change strategies with mindfulness and acceptance perspectives and strategies. Thus, the clinician teaches and promotes client understanding and ability to explore, allow, and sit with internal (thoughts, images, emotions, and bodily sensations) and external events.

Table 1

Common Elements of MB-ESTs

The Mindfulness-based Clinician:
1. Balances Acceptance and Change
2. Elicits Client Commitment
3. Emphasizes Experiential Learning
4. Uses a Holistic-Contextual Conceptualization
5. Normalizes Client Experience and Balances Power Differential
6. Prioritizes Optimization of Skillfulness (more than the remediation of pathology)
7. Promotes Pattern Recognition.

The clinician balances this goal with varying degrees of change strategies commonly found in CBT, such as behavioral activation, homework assignments, monitoring/assessment, and so on.

Data Supporting Treatment Element

The MB-ESTs synthesize acceptance and mindfulness strategies with behavioral-based change methods. In DBT, mindfulness and acceptance are taught as a set of skills and a stance used by clinicians and clients. In ACT, acceptance is employed to undermine experiential avoidance and promote committed action in the service of identified values. MBCT, MBRP, and MB-EAT integrate mindfulness meditation practices with traditional cognitive-behavioral strategies. MBSR emphasizes acceptance over change, however commitment to formal meditation practice is a necessity of the program. Detailed accounts of balancing acceptance and change strategies from each MB-EST are presented in Table 2.

Expert Survey Findings

Findings from the expert survey indicate strong support of balancing acceptance and change strategies as common to mindfulness-based treatment. Figure 1 demonstrates findings from the expert survey. Three respondents did endorse "disagree" (7%) and one respondent endorsed "strongly disagree" (1%). However, none of the respondents elected to provide a rationale. Despite this finding, there is a consensus among experts on balancing acceptance and change strategies to be a central aspect of mindfulness-based treatment.

Table 2

Treatment Element 1: Balance Acceptance and Change Strategies

Treatment	Mindfulness & Acceptance	Change Elements
I. MBSR	• Meditation to practice acceptance of emotions, thoughts, and bodily sensations. • Letting go of goals (non-striving).	• Increased awareness of bodily sensations to signal the need for self-care and adaptive responding. • Commitment to meditation practice.
II. MBCT	• Acceptance of emotions, thoughts, and bodily sensations to counteract rumination. • Cultivate "Being Mode."	• Regular formal meditation practice. • Adaptive responding to signs of depressive relapse. • Relapse prevention.
III. ACT	• Acceptance/willingness • Present moment awareness • Defusion • Self-as context	• Decrease attachment to conceptualized self. • Values clarification. • Committed action.
IV. DBT	• Validation. • Reciprocal communication of therapist. • Direct environmental intervention (used minimally). • Mindfulness and Distress Tolerance Skills (i.e. radical acceptance, and willingness).	• Problem solving strategies. • Irreverent communication of therapist. • Consultation to the patient regarding their environment. • Emotion Regulation, Interpersonal Effectiveness, and Distress Tolerance Skills (i.e. distract, self sooth, improve the moment, etc.)
V. MB-EAT	• Cultivate self-acceptance and nonjudgmental awareness of eating experience. • "Inner wisdom" and "outer wisdom" in regards to food choice. Making mindful food choices based on both "liking" and health.	• Formal meditation practice. • Behavior substitution (i.e. modifying comfort eating), and exposure to challenging foods & potlucks. • Challenge cognitive distortions. • Identify & tolerate emotional triggers and huger cues to prevent over eating.

Table 2, continued

Treatment	Mindfulness & Acceptance	Change Elements
VI. MBRP	• Acceptance of current experience (e.g. allowing and being with difficult emotional and physical states instead of trying to get rid of them). • Present moment awareness to counteract auto-pilot mode (i.e. pausing, taking a breathing space, and evaluating one's choices).	• Skillful mindful action (i.e. responding vs. reacting, making choices that are in one's best interest). • Formal meditation practice. • Relapse prevention. • "It is important to find the balance between accepting whatever arises while also encouraging healthy or positive action in our lives" (Bowen & Chawla, 2010, p. 111).

Element 2: Elicit Client Commitment

Operational Definition

In mindfulness-based treatment, there is a period of pretreatment to asses and elicit client commitment. Furthermore, over the course of treatment, the clinician regularly promotes client commitment and adherence to treatment.

Data Supporting Treatment Element

The MB-ESTs are recognized as behaviorally-based interventions, and thus, client commitment is highly emphasized. A preprogram orientation that elicits client commitment is implemented in MBSR, MBCT, MB-EAT, and MBRP. In the pre-treatment phase of DBT, the therapist functions as a good salesman and employs several commitment strategies to acquire client commitment. In ACT, the therapist encourages a state of creative hopelessness to promote client commitment to treatment, in addition to committed action being a core process of treatment.

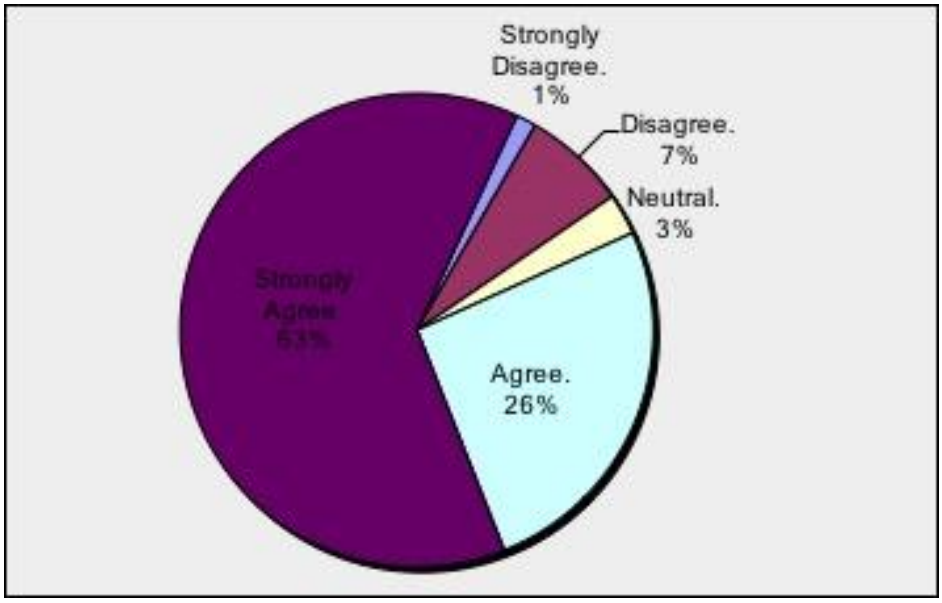

Figure 1. Balance Acceptance and Change Expert Consensus

"Practice, practice, practice" is a phrase often used to maintain commitment in mindfulness-based treatment, and difficulties in adherence to practice are reframed as opportunities to practice. Thus, the MB-EST clinician are encouraged to return to client commitment whenever the client feels stuck. Overall, a central task of the mindfulness-based clinician is to circumvent defenses and engage clients in personal "response-ability" to treatment. Examples of commitment strategies from each MB-EST are outlined in Table 3.

Expert Survey Findings

Interestingly, client commitment was the least supported element; however, it still received 86% agreement among experts. In contrast with the other elements, this element had a comparable number of respondents who endorsed agree (44%) versus strongly agreed (42%). Some information gathered from the comments section of the survey may shed light on this divide. Some experts had quarrel with the operational definition of this element. One respondent agreed with "assessing and eliciting client commitment" yet agreed less with "clinician regularly promotes client commitment and adherence to treatment." Another respondent disagreed with the presence of a period of "pretreatment" in all mindfulness-based treatment and thus, endorsed "agree" as opposed to "strongly agree." Despite this difference, client commitment appears to be an important aspect of mindfulness-based treatment. The three respondents that endorsed "disagree" (7%) and one respondent who endorsed "strongly disagree" (1%) did not provide a rationale for their responses. Thus, the verdict among experts on the importance of eliciting client commitment adjourns. Figure 2 demonstrates these findings.

Table 3

Treatment Element 2: Elicit Client Commitment

Treatment	Qualitative Data
I. MBSR	• Weekly review of participant practice. • Mid program review of commitment. • Emphasize continuous practice.
II. MBCT	• Weekly review of participant practice. • Continuous exploration of participant difficulties with practice.
III. ACT	• Weekly review of client skills practice. • Explore control and avoidance strategies as barriers to willingness and link to valued living.
IV. DBT	• Continuous and repeated commitment is considered both a prerequisite for effective therapy and a goal of the therapy. • Chain analysis of therapy interfering behaviors.
V. MB-EAT	• Pre-orientation to assess for commitment. • Emphasize making a solid commitment to the process to see real progress at the end of the 10 weeks.
VI. MBRP	• Precourse meeting to provide rationale for commitment, inquire about motivation and anticipated barriers to commitment, and highlight the importance of home practice. Rather than sell individuals on the course, the clinician elicits their own motivations and commitment.

Element 3: Emphasize Experiential Learning

Operational Definition

The clinician emphasizes experiential learning and uses a variety of different experiential approaches to engage client in the felt sense of mindfulness and the client's struggle with experience. Whenever possible, clinician avoids over conceptualized discussions of client's content, but instead pulls for and works with experience in the room. Interventions include formal and informal mindfulness practice, metaphors, stories, poetry, interoceptive exposure, and creative visualization.

Data Supporting Treatment Element

Generally, MB-ESTs embrace experiential knowledge over verbal forms of knowledge acquisition. Although DBT relies more heavily on didactic instruction and thus more often provides the rationale before practicing the skill, there is consensus that skills, especially mindfulness, must be practiced to be understood. In MBSR, MBCT, MBRP, and MB-EAT, sessions begin with a formal mindfulness practice followed by query of client experience. Query involves eliciting client reactions to exercises, asking open questions, validating client experience, and summarizing reflections. The mindfulness-based clinician provides opportunities in session to practice mindfulness skills in the presence of difficult experience. ACT relies heavily on experiential exercises and uses the client's experience as a guide. Examples of experiential learning strategies from each MB-EST is presented in Table 4.

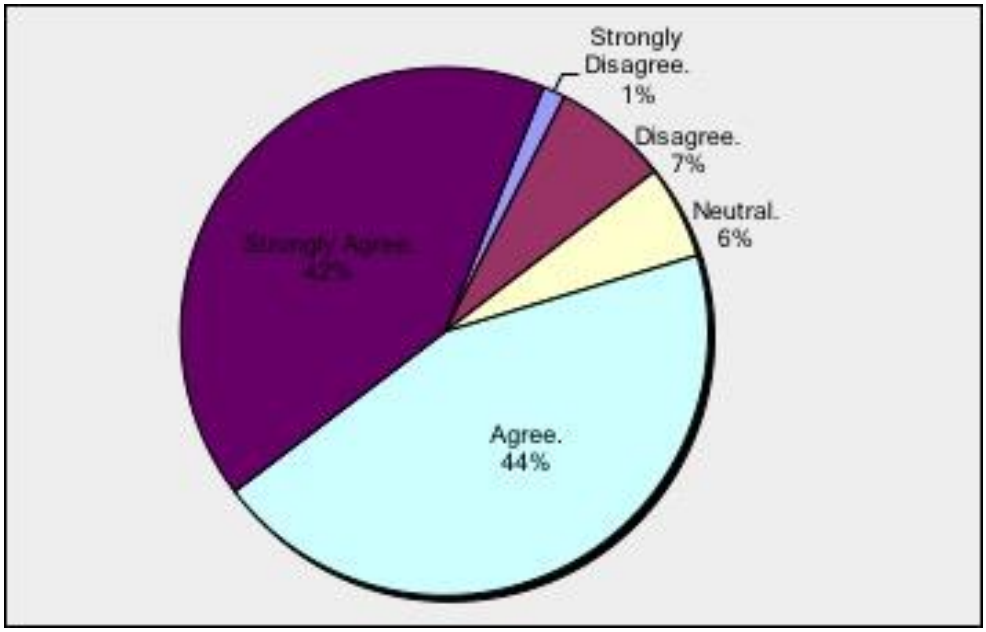

Figure 2. Elicit Client Commitment Expert Consensus

Table 4

Treatment Element 3: Emphasize Experiential Learning

Treatment	Qualitative Data
I. MBSR	• "Discussions are secondary to the actual practice of mediations. Doing it is most fundamental" (Kabat-Zinn, 1990, pp. 140-141). • Each session begins with mindfulness exercise or meditation followed by discussion.
II. MBCT	• Experiential learning is one of the core themes of MBCT in that the required skills/knowledge of mindfulness can only be acquired through direct and repeated experiences (Segal et al., 2002). • Teaching moments are based on participants' own experience rather than lectures from the instructor and should embody the assumption that the participants are the experts on themselves (Segal et al., 2002).
III. ACT	• In ACT the experience of the client is the absolute arbiter of truth. • Experiential exercises are designed to help the client contact troublesome thoughts, feelings, memories and physical sensations or to experience the odd workings of their own verbal processes (Luoma et al., 2007).
IV. DBT	• "Dialectical reasoning, both on the part of the therapist and as a style of thinking taught to patients...requires the individual to assume an active role, to let go of logical reasoning and intellectual analysis as the only route to truth, and to embrace experiential knowledge" (Linehan, 1993, p. 204).
V. MB-EAT	• Enhance experiential knowledge through cultivation of inner and outer wisdom. "The program will not be providing specific answers but instead will help participants find and depend on wisdom that they already have in themselves to create a better balance" (Kristeller & Wolever, in press). • All sessions have an embedded mindful eating practice and opportunities to practice challenging situations, such as a potluck.
VI. MBRP	• "Core principles of MBRP are elicited from participants whenever possible and are explored through experiential practices and inquiry. This encourages participants to see their own habits of mind and patterns of behavior and to discover what is true from observation of their own experience" (Bowen & Chawla, 2010, p. 6).

Expert Survey Findings

Out of all the elements, experiential learning had the strongest support from experts (Strongly Agree 72%; Agree 25%). It is worth mentioning that a handful of experts emphasized therapist personal practice of mindfulness to be an important aspect of experiential learning. Due to the experiential nature of mindfulness, it is important that therapists have their own practice to effectively guide and support clients with their practice. We found this aspect of mindfulness-based treatment to fit better under element five, "equality of therapist;" however, we recognize its relevance in experiential learning and will consider revising the operational definition to include this facet. Another expert emphasized the use of "perceptual information-processing systems versus conceptual information processing systems." Pashko (2016) argues that mindfulness may enhance perceptual or experiential processing, which is proposed to facilitate creative and insightful decision-making. Overall, there is a strong consensus among experts on experiential learning being a vital component of mindfulness-based treatment. Figure 3 demonstrates the findings on experiential learning from the expert survey.

Element 4: Use a Holistic-Contextual Conceptualization

Operational Definition

The clinician considers, assesses, and treats from a holistic perspective. The interactions and relationships between mind and body as well as person and environment are continuously considered.

Data Supporting Treatment Element

MB-ESTs embrace a holistic conceptualization of mental health and do not bifurcate the mind from the body or the client from their greater social and cultural

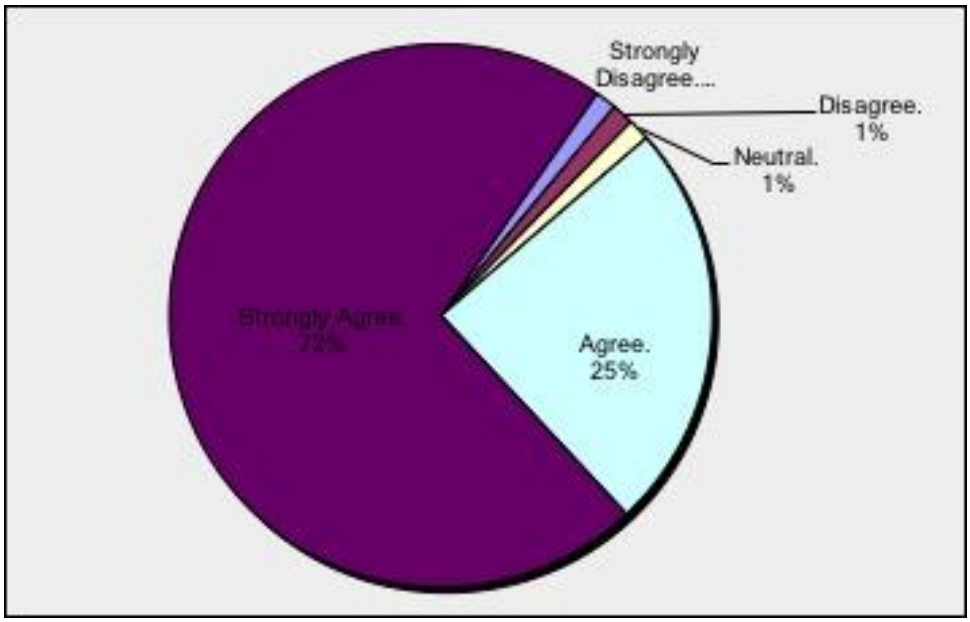

Figure 3. Emphasize Experiential Learning Expert Consensus

context. The MB-ESTs consider the interrelation between the mind, body, and context to be pivotal in the initiation and maintenance of psychological and other health problems. MBSR, ACT, DBT, MBRP, and MB-EAT view the client holistically with interconnected influences on daily functioning. MB-ESTs acknowledge the historical and cultural influences that make it challenging to engage in more adaptive responding. Thus, exercises are taught to promote this holistic perspective. The MB-ESTs also use a client's social and cultural context to promote connectedness and a sense of shared experience and affiliation. In MBSR, a holistic view of healing and health is used to balance the reductionism approach of biomedicine (Herbert & Forman, 2011). Interestingly, MBCT does not use terms such as holistic, interconnectedness, or connectedness; however, it does promote the integration and awareness of the mind-body connection. Examples of holistic-contextual elements from each of the MB-ESTs are presented in Table 5.

Table 5

Treatment Element 4: Holistic-Contextual Conceptualization

Treatment	Qualitative Data
I. MBSR	Meditation is proposed to work on three interrelated and universal aspects of human experience. These include a moment-to-moment awareness and observation of: • A connection between mind and body; • The interconnectedness of sensation, impulses, thoughts, feelings and meaning in coherent patterns; • "A sense of belonging, of connectedness, of being in community in the largest sense" (Kabat-Zinn et al., 2002, p. 295).
II. MBCT	No discussion of context or cultural variables was found in the materials, but it does practically integrate the interconnectedness of mind and body in the individual (Fielding, 2009).
III. ACT	• "Experiential avoidance is often amplified by the social/cultural community, which promotes the idea that healthy humans do not have psychological pain (e.g. stress, depression, memories of trauma) and specifies the actions that need to be taken to avoid such negative private events" (Luoma et al., p. 13). • "ACT is essentially a contextual therapy in that it attempts to alter the social/verbal context rather than the form or content of clinically relevant behavior" (Hayes et al., 1999, p. 19).
IV. DBT	• A primary characteristic of the dialectical perspective on the nature of reality is "the principle of interrelatedness and wholeness" (Linehan, 1993). • The use of dialectics in DBT directs therapeutic attention to both immediate and larger contexts of behavior, and to the interrelatedness of individual behavior patterns (Linehan, 1993b).
V. MB-EAT	• Managing social influences (i.e. social pressures to eat from friends or family members). • Employing mind-body exercises (i.e. yoga, walking meditation, and body scan/healing self-touch).
VI. MBRP	• Uses a holistic conceptualization of addiction and harm reduction paradigm, utilizing relapse prevention strategies.

Expert Survey Findings

There is a clear consensus among experts on using a holistic-contextual conceptualization in mindfulness-based treatment. Of note, there was an interesting trend among experts who reported "cultivating compassion for self and others" and

"engagement with the wider community" as important elements in mindfulness-based treatment. These elements further emphasize the importance of contextual factors (i.e. how we relate to our experience) and interconnectedness in mindfulness-based treatment. There was no rationale provided as to why six respondents chose a neutral stance and one disagreed with this element. Figure 4 demonstrates these findings.

Element 5: Normalize Client Experience and Balance Power Differential

Operational Definition

Clinician emphasizes the ubiquity of human suffering and normalizes psychological distress. The therapeutic alliance is less hierarchical in mindfulness-based treatment. Equality between clinician and client is promoted through clinician's personal mindfulness practice, modeling, and self-disclosure (e.g. how skills function in his/her life).

Data Supporting Treatment Element

The mindfulness-based clinician speaks from an equal, vulnerable, compassionate, and sharing point of view. Mindfulness-based clinicians are susceptible to the same cognitive, emotional, and behavioral traps confronted by clients. For this reason, it is important that therapists have their own personal mindfulness practice. DBT notes the inherent power differential in the therapeutic alliance and works to minimize it through self-disclosure and other strategies. Equality between therapist and client is emphasized in MBSR, MBCT, ACT, MBRP, and MB-EAT. Examples of using a holistic-contextual conceptualization from each of the MB-ESTs are presented in Table 6.

Expert Survey Findings

There was strong evidence among experts on normalizing client experience and

balancing the power differential to be a central aspect of mindfulness-based treatment. In particular, quite a few experts emphasized the "instructor's embodiment of mindfulness practice" and "practicing self-compassion and kindness" to be important aspects of the therapeutic alliance. There were three respondents who endorsed "neutral," one respondent who endorsed "disagree," and another respondent who endorsed "strongly disagree. However, no rationale was provided by these experts. Nevertheless, Figure 5 demonstrates the strong evidence of this element from experts in the field.

Element 6: Prioritize Optimization of Skillfulness

Operational Definition

The clinician emphasizes the optimization of skillfulness and long-term adaptive responding over the remediation of symptoms, per se, or psychopathology. Clinician targets second order change through cultivating mindfulness skills and processes as an alternative to maladaptive avoidance.

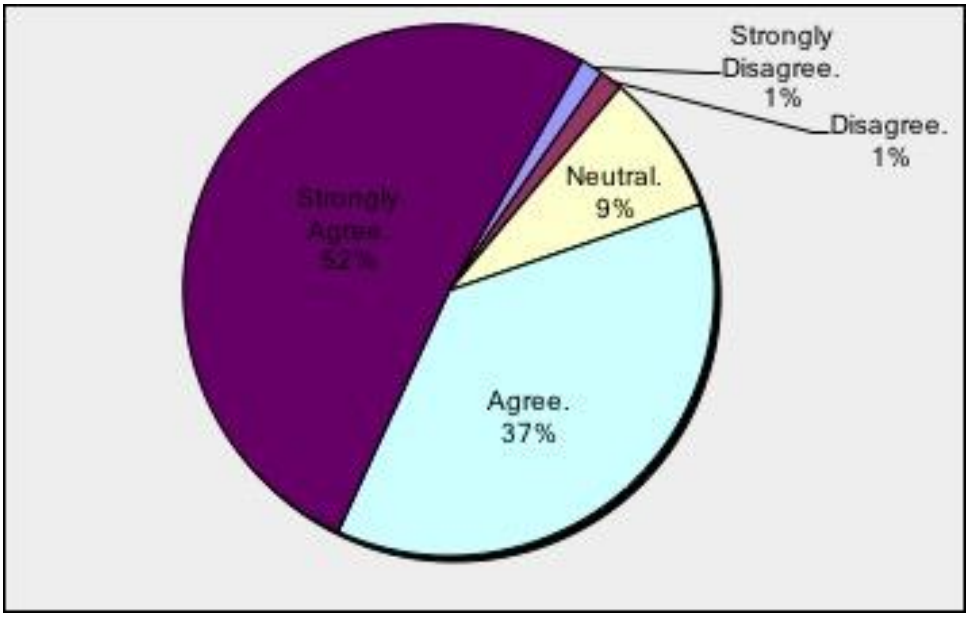

Figure 4. Use a Holistic-Contextual Conceptualization Expert Consensus

Table 6

Treatment Element 5: Normalize Client Experience and Balance Power Differential

Treatment	Qualitative Data
I. MBSR	• Overall program message: "We all (whether patient or clinician) frequently find ourselves swept away by the currents of thought and feeling related to the past, present, or future" (Segal et al., 2002, p. 82).
II. MBCT	• "The assumption [is] of continuity between the experiences of the instructor and the participants" (Segal et al., 2002, p. 55). • "Minds operate in similar ways, and there is no basis for discriminating between the minds of those seeking help and those offering it" (p. 56).
III. ACT	• "ACT seeks to promote nonhierarchical, humanizing relationships between therapists and clients" (Luoma, Hayes, & Walser, 2007, p. 270). • "We are in this stew together. We are caught in the same traps. With a small twist of fate, we could be sitting across from each other in opposite roles" (Hayes et al., 1999, p. 272).
IV. DBT	• "Effective therapy requires that the therapist be particularly sensitive to [the power differential] dilemma" (Linehan, 2003, p. 373). • "Reciprocal communication strategies are designed to reduce the perceived power differential between therapist and patient; to increase the vulnerability of the therapist to the patient, and thereby communicate trust and respect for the patient; and to deepen the attachment and intimacy of the relationship" (p. 373).
V. MB-EAT	• "The recommended minimal amount would be personal mindfulness training in a group context, such as an MBSR program, and at least 6 months of daily personal practice…There is no substitute for personal mindfulness meditation practice in being competent to lead this program" (Kristeller & Wolever, in press).
VI. MBRP	• "The most crucial factor in facilitating MBRP is the facilitators' personal practice of mindfulness meditation. Supporting others in the practice comes from one's own lived experience and history of having encountered similar struggles (Bowen & Chawla, 2010, p. 10).

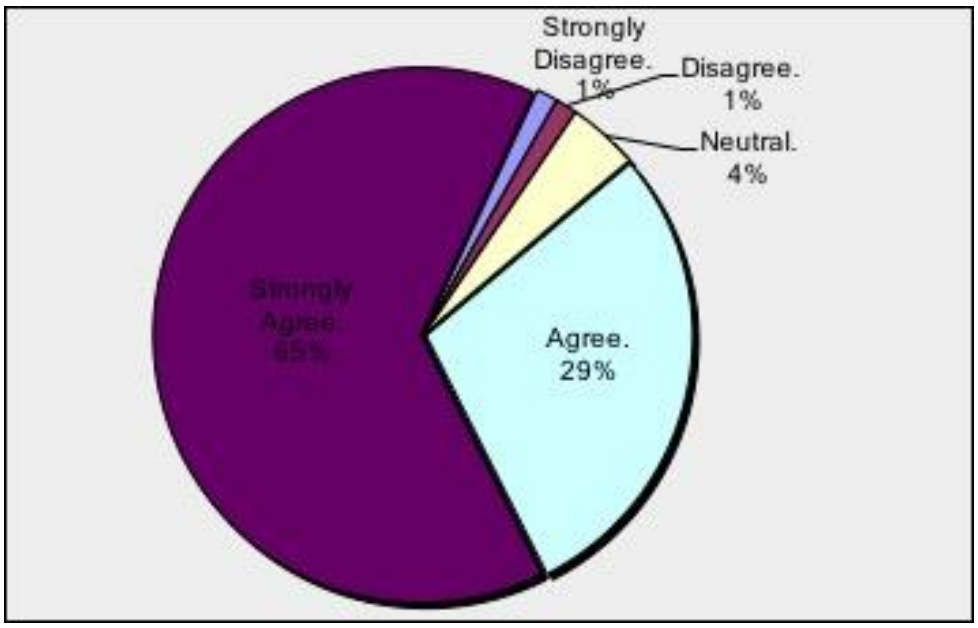

Figure 5. Normalize Client Experience and Balance Power Differential Expert Consensus

Data Supporting Treatment Element

The MB-ESTs represent a paradigmatic shift from a focus on first order change, or replacing problematic thoughts, feelings, and behaviors with more adaptive ones, to second order change, altering the function of problematic events through mindfulness and acceptance. MB-ESTs work under the assumption that when skillfulness is optimized, less effective processes such as rumination, avoidance, and control are disengaged. Thus, methods such as dialectical thinking, skill acquisition, and mindfulness meditation are proposed as the alternative to ineffective short-term problem solving. Ruth Baer's (2006) research on the facets of mindfulness found a negative correlation between psychiatric problems and mindfulness facets of non-reactivity, nonjudgment, and acting with awareness. This research supports the notion that optimizing mindfulness may decrease maladaptive reactivity, thereby improving outcomes. Finally, consistent findings are emerging on the link between greater self-compassion and less psychopathology (Barnard

& Curry, 2011). Thus, moderating client's reactions to negative events through self-compassion and nonjudgmental awareness may facilitate greater resilience and wellbeing. In sum, optimizing skillfulness is a central goal in mindfulness-based treatment. Examples of optimizing skillfulness from each MB-ESTs is presented in Table 7.

Expert Survey Findings

"Optimizing skillfulness" was the second strongest supported element following experiential learning. Experts agree with optimizing skillfulness being a central theme of mindfulness-based treatment. One expert emphasized the importance of "identifying the function of experiences and thoughts, observing one's own response to the experience rather than the experience itself, and identifying underlying verbal (meta) rules underpinning behavior (e.g. core belief or philosophical stance, etc.)." Another expert added "emphasis on the learning process and discovery, less than on the outcomes; emphasis on empowering the individual client, learning new ways of responding to common stressors, and personal growth." Overall, the results from this survey corroborate with our finding on optimizing skillfulness to be a common component of mindfulness-based treatment. Figure 6 demonstrates the findings from expert survey.

Element 7: Promote Pattern Recognition

Operational Definition

Clinician conducts ongoing functional analyses to identify and promote client awareness of automatic reactivity (thoughts, emotions, bodily sensations, impulses, and behaviors) and the relationship between components of experience.

Table 7

Treatment Element 6: Prioritize Optimization of Skillfulness

Treatment		Qualitative Data
I.	MBSR	• Central Paradoxical Conceptualization: The best way to 'get somewhere' is to not try to get anywhere at all but just to be where they already are, with awareness" (Kabat-Zinn et al., 2002, p. 290). • Distinguishes secondary from primary pain: Suffering is distinct from pain. Suffering is delineated as "an emotional interpretation" of "basic sensory input," which is painful (Kabat-Zinn et al., 2002, p. 292). • Practices targeting secondary reactivity: Formal/ informal practice of mindful awareness/acceptance of individual patterns of reactivity (aversion, attachment) to internal/ external events (Fielding, 2009).
II.	MBCT	• Central Paradoxical Conceptualization: "If we cope with our unpleasant feelings by pushing them away or trying to control them, we actually end up maintaining them" (Segal, Williams, & Teasdale, 2002, p. 292). • Distinguishes secondary pain from primary pain: Depressive thoughts and feelings work off one other to contribute to a vicious downward spiral.
III.	ACT	• Central Paradoxical Conceptualization: "If you aren't willing to have it, you've got it." ○ While solution oriented problem solving can be very effective with external problems, it is one's attempts at changing negative content that is a major source of much psychopathology (Hayes et al., 1999) • Distinguishes suffering (dirty pain) from normal pain (clean pain). • Practices targeting secondary reactivity: Therapist helps client make direct contact with the paradoxical effects of emotional control strategies (Fielding, 2009).
IV.	DBT	• Therapeutic change can only occur in the context of acceptance of what is; however, 'acceptance of what is' is itself change" (Linehan, 1993, p. 99). • "Dysfunctional and maladaptive emotions...are usually secondary emotions that block the experience and expression of primary emotions" (Linehan, 1993, p. 227). • Practice targeting secondary reactivity: "If an emotion secondary to a primary emotion has been targeted for reduction (e.g. fear of fear, or shame about anger), the therapist wants to expose the patient to the primary emotion cues (fear and anger respectively). The aim in this case is not to change expressions of the primary emotion, but instead to expose the patient to the primary emotional cues (including somatic cues)" (Linehan, 1993, pp. 356-57).
V.	MB-EAT	• "The focus of the program is on creating a balanced, healthier and more positive relationship to eating. The core of the program is learning to become more aware of natural internal signals of appetite - both hunger and satiety. Weight loss is considered a beneficial side-effect of gradual and sustainable lifestyle change, rather than being the primary focus or goal" (Kristeller & Wolever, in press).

Table 7, continued

	Treatment	Qualitative Data
VI.	MBRP	• Core of MBRP is to practice recognizing discomfort and accompanying reactions, including urges to escape or change an unwanted experience. Rather than defaulting to habitual, reactive behaviors, we approach this experience with gentle, nonjudgmental curiosity.

Data Supporting Treatment Element

MB-ESTs conduct a functional assessment to help clients become mindfully aware of, rather than driven by, conditioned patterns of cognitive, emotional, and behavioral reactivity (Herbert & Forman, 2011). DBT recognizes the importance of ongoing self-monitoring and assessment to increase pattern recognition. MBCT, MBRP, and MBEAT encourage the recognition and acceptance of negative coping patterns so that clients can catch themselves before the cycle spirals. MBSR highlights the role of mindfulness in de-automating habitual patterns of stress reactivity, which lead to adverse

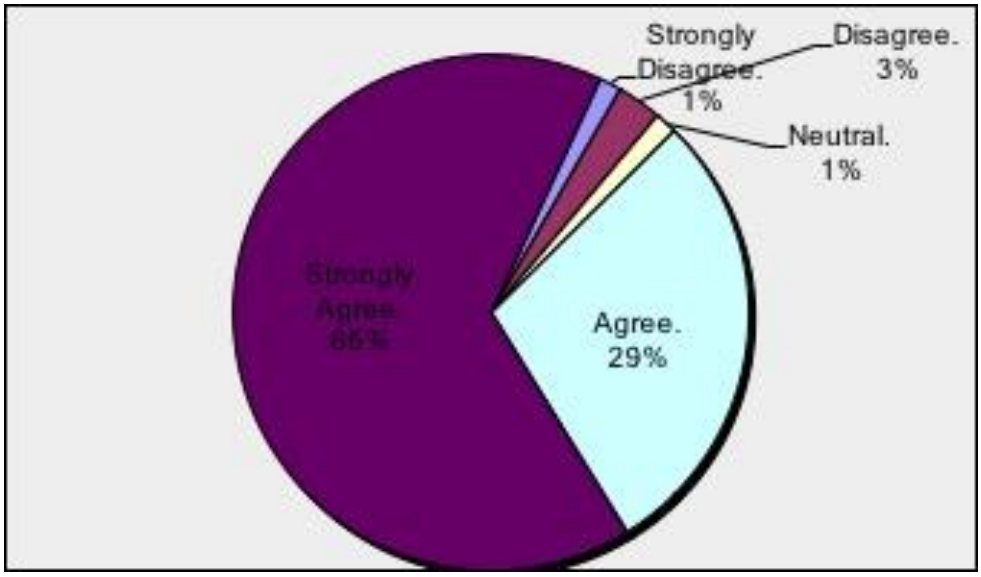

Figure 6. Prioritize Optimization of Skillfulness Expert Consensus

health consequences (Kabat-Zinn, 1990). In ACT, the six process are used to help clients understand and become familiar with patterns of behavior so that they respond intentionally and flexibly. Examples of promoting pattern recognition from each MB-EST is presented in Table 8.

Expert Survey Findings

90% of experts either strongly agreed (58%) or agreed (34%) with pattern recognition as a core component of mindfulness-based treatment. There were four respondents who endorsed "neutral," one respondent who endorsed "disagree," and another respondent who endorsed "strongly disagree."

Unfortunately, there was no rationale provided as to why these respondents disagreed or took a neutral stance with this element. Despite this finding, there is a clear consensus among experts on promoting patterns recognition in mindfulness-based treatment. Figure 7 demonstrates these findings.

Conclusion

The results from this analysis identified seven common elements of mindfulness-based, empirically-supported treatments (MB-ESTs), which were derived using a qualitative content analysis and received strong support from experts in the field. The findings of this work have important implications for the future provision of Evidence Based Practice in Psychology (EBPP) using mindfulness, clinician training, and research endeavors. In sum, these elements may serve as an operational definition of EBPP and a guiding light on the EBPP mandate. In the following chapter, these implications and future research directions towards integrating MB-ESTs into evidence-based practice will be discussed.

Table 8

Treatment Element 7: Promote Pattern Recognition

Treatment	Qualitative Date
I. MSBR	"If we can observe in ourselves the toxicity of certain beliefs, thought patterns, emotional patterns, and behaviors as they arise in the moment, then we can work to lessen their hold on us"(Kabat-Zinn, 1990, p. 167)
II. MBCT	Using skillful action to take care of ourselves in the face of lowering mood. We can lift depressed mood by intentional skillful action. We can respond more promptly and effectively to lowering mood by learning to recognize our personal pattern of warning signs. After taking a breathing space, we kindly take care of ourselves by acts that give pleasure or a sense of mastery, or provide a clear focus for mindfulness" (Segal, Williams, & Teasdale, 2002, p. 340).
III. ACT	"The purpose of ACT is to help clients build ongoing patterns of values-consistent, committed actions by choosing valued life directions, by engaging in actions that are consistent with those values, and by consciously building larger patterns of values consistency" (Hayes, Strosahl, & Wilson, 2011, p. 120).
IV. DBT	"The overriding and pervasive target of DBT is to increase dialectical behavior patterns among borderline patients. Put simply, this means both enhancing dialectical patterns of thought and cognitive functioning, and helping patients to change their typically extreme behaviors into more balanced, integrative responses to the moment" (Linehan, 1999, p. 120).
V. MB-EAT	"The intention is to have participants experience a sense of empowerment and encouragement with moving forward, using the tools provided, in creating a new, more functional relationship to eating, to food, and to themselves" (Kristeller & Wolever, in press).
VI. MBRP	Introduces mindfulness as a means of becoming aware of the patterns of the mind, as well as emotional and behavioral reaction patterns: "Ultimately, we are working toward freedom from deeply engrained and often catastrophic habitual patterns of thought and behavior" (Bowen & Chawla, 2010, p. 1).

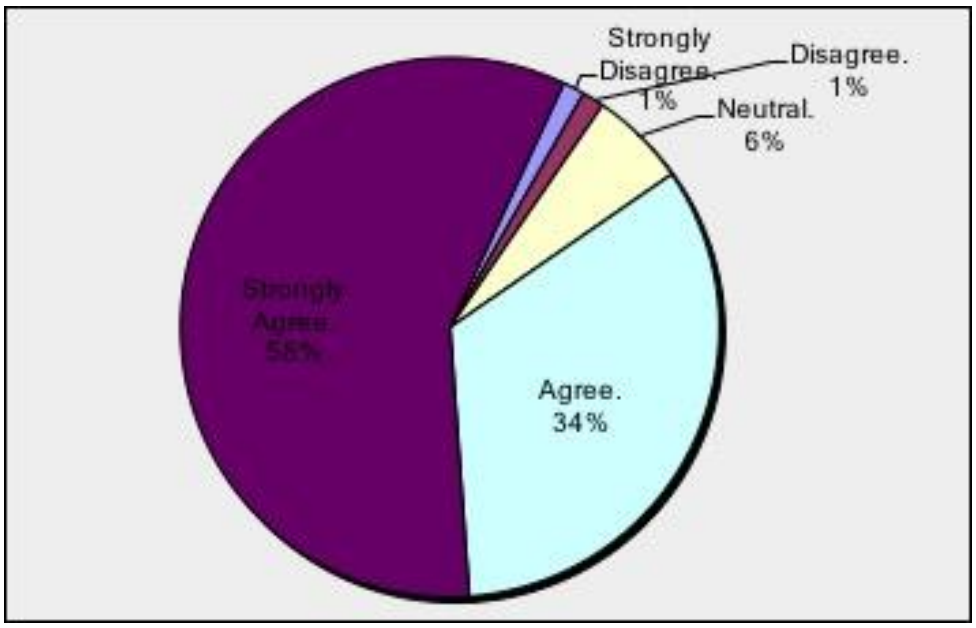

Figure 7. Promote Pattern Recognition Expert Consensus

CHAPTER 5

DISCUSSION

The goal of the present study was to derive and validate the core constituents of effective mindfulness-based treatment. This study is a replication and extension on the original work of Fielding (2009) on this topic with a firm rationale based on prior common elements research. The common elements identified in the study can be used as benchmarks for mindfulness-based, evidence-based practice in adherence to APA's (2005) mandate on Evidence Based Practice in Psychology (EBPP). This checklist may serve as an operational definition or temporary guide for mindfulness-based, evidence-based practice. In the present chapter, implications and future research directions towards integrating MB-ESTs into evidence-based practice will be discussed.

Implications of Common Elements for Clinical Integration

The seven common elements derived from the present analysis can contribute to future practice, training, and research efforts. Until more dismantling studies are conducted, these elements can serve as a temporary guide of what needs to be promoted in order to deliver effective mindfulness-based treatment. This research can also minimize redundancy in training and increase clinical interest and commitment to EBPP. The common elements are very amendable to integration into other theoretical orientations, aside from CBT. Additionally, it is more time and cost effective then training clinicians

in each individual treatment. Finally, the common elements can facilitate future dismantling studies by offering novel hypotheses related to mechanisms of effectiveness.

In conclusion, specific implications for clinical practice, training, and research will be discussed in more depth in the following sections. It is important to note that many of the findings corroborate with Fielding's (2009) conclusions; however, novel findings from the present study will be further underscored.

Implications for Clinical Practice

The common elements derived from the present analysis and validated by experts in the field provide clinicians with broad categories to facilitate clinical decision-making. As mentioned, it is not ideal to apply a one-size-fits-all approach to clients. However, clinicians choosing not to adopt an entire manualized treatment protocol must determine which elements from the treatment manual merit integration. The common elements provide clinicians with a starting point that can better inform treatment planning and higher fidelity to EBPP using mindfulness-based modalities.

Additionally, as noted in Fielding's study (2009), the EBPP requirement for clinicians to tailor empirically-supported treatments to meet the needs of diverse patient populations can be facilitated by the common elements. Still to date, there have been few studies that examine the effectiveness of manualized approaches on culturally diverse patient populations. Thus, the common elements may be an interim approach while more research emerges because it allows for the flexible adaptation of the MB-ESTs. The common elements shift the focus from the application of specific techniques to the purpose of the intervention. Thus, the clinician can easily substitute techniques that resonate more with a specific patient population. For example, Fielding (2009) suggested

adapting metaphors to fit the client's context and using informal mindfulness practices with clients whose religious beliefs preclude formal meditation. Knowing the core elements of effective treatment helps the clinician to keep the goal of the specific techniques in mind (Fielding, 2009).

Finally, the common elements can be used to target multiple symptoms, which will contribute to EBPP adherence. In real world settings, clients do not present as neatly as the subjects in randomized controlled trials. Therefore, a transdiagonistic approach is needed which targets common deficits across diagnoses. The common elements inform treatment goals by offering common principles of change and techniques and interventions that cut across many different treatments. Furthermore, a practice implication derived from this research and found in Fielding's (2009) work entails the paradigm shift from a symptom reduction to an optimizing skillfulness framework. Clinicians need to work with health maintenance organizations' (HMOs) expectations for enhancing adaptive processes rather than decreasing symptoms as a treatment goal. Framing treatment goals to reflect this paradigm shift will undoubtedly be a challenging yet pivotal task for clinicians moving forward. In conclusion, the common elements can provide clinicians with a tailored, flexible, and evidence-based approach to clinical practice.

Implications for Clinical Training

As previously mentioned, the common elements approach is transdiagnostic and thus can strengthen adherence to EBPP standards. Trainees can develop broad conceptualization skills and generalize change strategies by using the common elements to identify and target shared core deficits across multiple diagnoses (Hershenberg,

Drabick, & Vivian, 2012). For example, the trainee may choose to focus on enhancing emotion regulation and present-focus awareness as a treatment goal, which underscores several diagnoses, rather than focusing specifically on anxiety or depression. Thus, the common elements approach can provide an avenue for targeting underlying mechanisms of action without committing to a manualized treatment approach. Also, using common principles of change to conceptualize clients' and treatments' goals may instill trainee confidence because it shifts the focus from executing a specific intervention to the goal of the intervention. Thus, the common elements can enable more creative problem solving and less rigid adherence to the same techniques for trainees.

Finally, the common elements may also provide clinicians with incentive for training in novel empirically-supported treatments (ESTs). Many clinicians report practicing in an eclectic framework, and thus might be more interested in ESTs if they could integrate them into their existing framework. The common elements are very amendable to integration and are also more cost-effective and time-effective then receiving training in each EST. Thus, training efforts can be facilitated by the common elements by increasing clinical interest and commitment to training. Finally, increasing clinical experience, peer networks, practitioner-oriented books, and continuing education using the common elements approach can significantly contribute to training in EBPP.

Implications for Research

The common elements identified in this study can contribute to research by providing an empirically-informed starting point for future dismantling studies. Potential studies can isolate and compare various active ingredients in the common elements to better understand the mechanism of action underlying mindfulness-based treatment. For

example, future analyses can examine the effectiveness of mindfulness-based treatment delivered in a valued-action framework as recommended in the present study versus a traditional symptoms-reduction framework. Furthermore, it appears that many of the elements identified in the present study support the operational definition developed by Baer et al. (2006) in the Five Facet Mindfulness Questionnaire (FFMQ). Thus, future factor analysis research can assess the degree to which these conceptual elements of mindfulness overlap with the elements found in the present study to further discern conceptual components of mindfulness (Fielding, 2009).

Moreover, outcome studies on the mindfulness-based common elements in practice as a whole can be conducted. The common elements approach not only facilitates greater flexibility of the pacing and content of mindfulness-based treatment but also provides enough structure to facilitate testing and replication (Chorpita et al., 2005). There have been few studies to date that have examined the effectiveness of a transdiagnostic mindfulness treatment approach. Thus, the present study can aid understanding its effectiveness in reducing psychological symptoms and improving quality of life. In sum, the findings of this study can be a first important step in understanding the essential elements of effective mindfulness-based treatment and the effectiveness of a common elements approach to evidence-based practice.

Future Directions

This work builds on previous common elements methods for integrating ETSs into EBP (Chorpita et al., 2005; Chorpita et al., 2007; Fielding, 2009; Garland et al., 2008). As previously mentioned, more dismantling studies are needed to parse out the specific elements that contribute to the efficacy of the individual treatments. There were

a few key findings from the expert survey regarding future directions. One expert recommended clarifying the importance of each element to a specific mindfulness-based treatment (i.e. ACT or DBT) versus other non-mindfulness-based treatments. Knowing which common element contributes to the efficacy of an individual treatment will lead to a better understanding of the actual mechanisms for change.

Another future direction could involve evaluating more specifically the different interventions that clinicians use for each element. For example, surveying clinicians on common techniques used for normalizing client experience and balancing the power differential (e.g. self-disclosure and metaphors) would lead to more suggestions regarding specific interventions. Furthermore, future direction is needed that validates and enhances measures and elements of mindfulness-based treatment for diverse populations. Specific adaptations should be identified that meet the needs of diverse cultural and ethnic groups.

Additional treatments were identified by experts to be included in future analyses. The treatments were Compassion Focused Therapy (CFT; Gilbert, 2005), Compassionate Mind Training (CMT; Gilbert, 2006), and Mindful Self-Compassion Training (MSC; Neff & Germer, 2013). CFT is a general therapeutic approach, and CMT is a group therapy developed by Paul Gilbert, designed to help clients develop compassionate attributes and skills that influence affect regulation. MSC was developed by Kristin Neff and Chris Germer and is based on the three components of self-compassion: self-kindness, common humanity, and mindfulness. MSC is viewed as a sister program to MBSR because it is formatted the same yet is aimed at explicitly teaching self-compassion. These compassion interventions entail mindfulness but were not included in the original

analysis because they were not considered a "mindfulness-based treatment," per se. However, the relevance of self-compassion and compassion for others as a common element in the present study warrants its inclusion in future analyses.

Conclusion

The present study contributes to APA's (2005) mandate on Evidence Based Practice in Psychology (EBPP) which utilizes mindfulness approaches by identifying the commonly shared elements of effective mindfulness-based interventions and providing treatment considerations for the integration of MB-EST common elements into clinical practice based on EBPP requirements. Seven common elements of MB-ESTs were derived using a qualitative content analysis and received strong support from experts in the field via a modified Delphi technique. In sum, these elements may serve as an operational definition of EBPP and a guiding light on the EBPP mandate.

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APPENDIX A

MB-EST MANUAL RESOURCES

MB-EST Manual Resources

Treatment	Resources Retrieved
I. MBSR	Mindfulness Based Stress Reduction (MBSR) A. *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness* (Kabat-Zinn, 1990). 1. Popular press book cited by the treatment developer, as the primary seminal and comprehensive description of the program. 2. Chapters assigned to participants in the MBSR program. B. MBSR training materials from the Center for Mindfulness in Medicine, Health care and Society (CMMHS). 1. Mindfulness-based Stress Reduction Professional Training; Mindfulness-based Stress Reduction Curriculum Guide and supporting materials; Integrating Mindfulness Meditation into Medicine and Health care. 2. Readings (primarily by Kabat-Zinn and Santorelli) describe how to represent MBSR including curriculum outlines, selected chapters, and monographs on MBSR. i. Background readings that include numerous theoretical articles on mindfulness and the MBSR program: ii. Scientific papers from The Stress Reduction Clinic and The Center for Mindfulness in Medicine, Health Care, and Society. iii. Practice manual provided to participants includes homework assignments, practice monitoring sheets, mindful yoga postures and sequences (to be used with guided recordings).
II. MBCT	Mindfulness-based Cognitive Therapy (MBCT) A. *Mindfulness-based cognitive therapy for depression, second edition.* (Segal, Williams, & Teasdale, 2013). 1. Written for treatment providers interested in learning about and using the treatment in practice and contains: i. Full description of the development of the treatment. ii. Theoretical underpinnings proposed to lead to the recurrence of Major Depressive Disorder. iii. Conceptual and applied methods of the treatment. iv. Session by session description of the treatment protocol, handouts, excerpts of dialogue that demonstrate clinical interactions.

III. ACT — Acceptance and Commitment Therapy (ACT)

A. *Acceptance and commitment therapy, Second Edition: The Process and Practice of Mindful Change* (Hayes, Strosahl, & Wilson, 2011).
    1. Seminal volume on treatment and an in-depth description of the theoretical underpinnings, processes, and applied intervention strategies and techniques.

B. *Learning ACT: An Acceptance and Commitment Therapy skills-training manual for therapists* (Luoma, Hayes, & Walser, 2007).
    1. Provides theoretical and conceptual understanding of the universal processes posited to underlie a broad range of psychological difficulties.
    2. Outlines specific core competencies the clinician to administer treatment and practice exercises for experiential understanding.
    3. Provides DVD recording demonstrating clinician-client interactions, core processes, and competencies.

C. *ACT for Depression: A Clinician's Guide to Using Acceptance and Commitment Therapy in Treating Depression* (Zettle, 2007).
    1. Updated manual: Provides effective treatment of Major Depressive Disorder (Zettle & Hayes, 1986; Zettle & Raines, 1989).

D. *Get out of your mind and into your life: The new Acceptance and Commitment Therapy* (Hayes and Smith, 2005).
    1. Self-help workbook designed for clients to use independently or in conjunction with individual therapy.

IV. DBT — Dialectical Behavioral Therapy (DBT)

A. *Cognitive-Behavioral treatment of borderline personality disorder* (Linehan, 1993).
    1. Provides detailed discussion of the core philosophical roots of the treatment of borderline personality disorder (BPD) using DBT, descriptions of specific acceptance and change strategies to be used by the individual therapist and the competencies necessary in the therapist.

B. *DBT Skills Training Manual, Second Edition* (Linehan, 2015).
    1. Provides review of the theoretical conceptualization of BPD and detailed outlines of each group skills training session.
    2. Volume and companion manual are the only currently available descriptions of the original treatment, which are associated with the treatment developer (for adults).

V. MBRP — Mindfulness Based Relapse Prevention (MBRP)

A. *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide* (Bowen, Chawla and Marlatt, 2010).
    1. Written for treatment providers interested in learning and using the treatment in practice and contains:
        v. Full description of the development of the treatment.
        vi. Theoretical underpinnings proposed to lead to the relapse of addiction.
        vii. Conceptual and applied methods of the treatment.
        viii. Session by session description of the treatment protocol, handouts, excerpts of dialogue that demonstrate clinical interactions.

VI. MB-EAT — Mindfulness Based Eating Awareness Training (MB-EAT)

A. *MB-EAT Clinician Manual* (Kristeller & Wolever, in press).
    1. Conceptual and applied methods of the treatment.
    2. Session by session description of the treatment protocol, handouts, excerpts of dialogue that demonstrate clinical interactions
B. *Chapter 6 - Mindfulness-Based Eating Awareness Training: Treatment of Overeating and Obesity* (Kristeller & Wolever, 2014) in Mindfulness-Based Treatment Approaches (Baer, 2014, pp. 119–139).
C. *Mindful Eating and Mindless Eating: The Science and Practice* (Kristeller & Epel 2014) in The Wiley Blackwell Handbook of Mindfulness (Ie, Ngnoumen, & Langer, 2014).
    1. Book chapters provide additional background; theoretical/conceptual framework; and research summary of MB-EAT.

APPENDIX B

MB-EST SURVEY RECRUITMENT SOURCES

MB-EST Survey Recruitment Sources

Treatment	Recruitment Source
I. MBSR	Mindfulness Based Stress Reduction (MBSR)
	A. List Serv 1. North. California MBSR Teachers: mbsr_norcal@yahoogroups.com 2. MBSR Research Group: mbsrresearch@yahoogroups.com i. This is a list-serve dedicated to promoting communication and collaboration among individuals interested in research related to Mindfulness and Mindfulness-Based Stress
	B. Treatment Developer 1. Saki Santorelli EdD, MA; i. Founded Oasis – an institute for mindfulness-based professional education and innovation within the Center for Mindfulness, UMASS. ii. Instituted in 2003 and Chairs an annual international scientific conference focused on mindfulness-based clinical care, research and education. iii. Established a comprehensive professional certification program in Mindfulness-Based Stress Reduction (MBSR), training materials from the Center for Mindfulness in Medicine, Health care and Society (CMMHS). *2. John Kabat-Zinn (unavailable)*
II. MBCT	Mindfulness-based Cognitive Therapy (MBCT)
	A. List Serv 1. MBCT Listserv: mbct@yahoogroups.com i. This group is dedicated to promoting communication and networking between individuals trained in Mindfulness-Based Cognitive Therapy.
	B. Treatment Developer(s) 1. Zindel Segal, PhD i. Author of *Mindfulness-based Cognitive Therapy for Depression* 2. Mark Williams, PhD: mark.williams@psych.ox.ac.uk *3. John Teasdale, PhD: Retired (contact info not available online).*

III. ACT — Acceptance and Commitment Therapy (ACT)

A. List Serv
   1. ACT Listserv for Professionals
   2. RFT Listserv for Professionals
      i. Forum for clinicians and scientists to discuss current conceptual, scientific, and practice developments in ACT and RFT. It is restricted to professionals or graduate students in relevant fields

B. Treatment Developer(s)
   1. Steven Hayes, PhD
      i. ACT Creator, Foundation Professor, University of Nevada.
   2. Robert Zettle, PhD
      i. Director, Contextual Behavioral Science Lab, Wichita State University.

IV. DBT — Dialectical Behavioral Therapy (DBT)

A. List Serv
   1. Harbor-DBT Emailing List
      i. This group is dedicated to promoting communication and networking between individuals employed at Harbor-UCLA and trained in DBT.

B. Treatment Developer
   1. Marsha Linehan, PhD
      i. DBT Creator and Director, Behavioral Research and Therapy Clinics at the Center for Behavioral Technology.

V. MBRP — Mindfulness Based Relapse Prevention (MBRP)

A. List Serv
   1. HAMS Harm Reduction Professionals google group
      i. This group is dedicated to promoting communication and networking between individuals trained in diagnosis and treatment of substance use disorders. MBRP has not yet established a listserv.

B. Treatment Developer(s)
   1. Bowen, Sarah PhD
      i. Co-developer MBRP, Assistant Professor of

Psychology, Pacific University.

2. Neha Chawla, PhD
    i. Co-developer MBRP, training and consultation in MBRP.
3. Joel Grow, PhD
    i. Co-developer MBRP, o-facilitates MBRP groups in both private and community treatment settings.
4. Katie Witkiewitz, PhD
    i. Co-developer MBRP, Associate Professor of Psychology at the University of New Mexico and the Center on Alcoholism, Substance Abuse, and Addictions.

VI. MB-EAT

Mindfulness Based Eating Awareness Training (MB-EAT)

A. List Serv
    a. ABCT List Serv
        i. This group is dedicated to promoting communication and networking between individuals trained CBT. MB-EAT has not yet established a listserv.

B. Treatment Developer(s)
1. Kristeller, Jean L. PhD
    i. Co-developer MB-EAT, Professor Emeritus, Indiana State University.
2. Wolever, Ruth Q. PhD
    i. Co-developer MB-EAT, Director of Research, Duke Integrative Medicine, Duke University.

APPENDIX C

INFORMED CONSENT

Informed Consent

VOLUNTARY STATUS: You are being invited to participate in a survey research study. Your participation is voluntary which means you can choose whether or not you want to participate. You may withdraw any time without penalty.

PURPOSE: The study in which you are being asked to participate is a qualitative content analysis that identifies the core common elements of the Mindfulness Based Empirically Supported Treatments (MBSR, DBT, ACT, MBCT, MBRP, MB-EAT). These elements may serve as benchmarks for mindfulness-based evidenced-based practice in adherence to APA's mandate (2005) on evidence-based practice in psychology (EBPP). ***The purpose of the survey is to assess the consensual validity of the list of identified common elements of effective mindfulness-based treatment.***

POSSIBLE RISKS: It is expected that participation in this study will provide you with no more than minimal risk or discomfort which means that you should not experience it as any more troubling than your normal daily life. While there are no direct benefits to participating, your response will help us to better understand the research topic.

CONFIDENTIALITY: The investigator involved with the study will not be collecting any personal information for the study. All responses to this survey are anonymous and confidential. Your name or identity will not be linked in any way to the research data. Concerning your rights or treatment as a research subject, you may contact the Research Integrity Officer at Azusa Pacific University (626) 812-3034.

CONSENT: I understand that my participation in this study is entirely voluntary and that I may refuse to participate or may withdraw from the study at any time without penalty. I have read this entire form and I understand it completely. By clicking below and completing the online assessments that follow I am giving my consent to participate in this study.

APPENDIX D

COMMON ELEMENTS SURVEY

Common Elements Survey

1) **Please check as many as applicable to indicate the level of experience you have with each treatment.**

	No Experience.	**Less than 5 years of experience.**	**5 or more years of experience delivering the treatment.**	**Intensive* experiential training, and/or certification.**	**Authored or co-authored a study on the treatment.**
Mindfulness Based Stress Reduction (MBSR)					
Mindfulness Based Cognitive Therapy (MBCT)					
Dialectical Behavior Therapy (DBT)					
Acceptance and					

Commitment Therapy (ACT)					
Mindfulness Based Relapse Prevention (MBRP)					
Mindfulness Based Eating Awareness Training (MB-EAT)					

*1 or more 5-10 day trainings in the treatment.

2) **Please describe the following about your experience; primary treatment, estimated years of experience, and specific training in that treatment.** (max word count: 150)

Please rate the degree to which you agree, based on your experience, with each selection as a core common element of effective mindfulness-based treatment.

The Mindfulness-based clinician:

1. Balances Acceptance and Change.

Definition: Clinician balances traditional CBT change strategies with mindfulness and acceptance perspectives and strategies. Thus, the clinician teaches and promotes client understanding and ability to explore, allow, and sit with internal (thoughts, images, emotions, and bodily sensations) and external events. Clinician balances this goal with varying degrees of change strategies commonly found in CBT, such as behavioral activation, homework assignments, monitoring/assessment, etc.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. Elicits Client Commitment.
Definition: There is a period of pretreatment to asses and elicit client commitment. Furthermore, over the course of treatment, the clinician regularly promotes client commitment and adherence to treatment.

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. Emphasizes Experiential Learning.
Definition: Clinician emphasizes experiential learning and uses a variety of different experiential approaches to engage client in the felt sense of mindfulness and the client's struggle with experience. Whenever possible, clinician avoids over conceptualized discussions of client's content. But instead pulls for and works with experience in the room. Interventions include formal and informal mindfulness practice, metaphors, stories, poetry, interoceptive exposure, and creative visualization.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Uses a Holistic-Contextual Conceptualization.
Definition: Clinician considers, assesses, and treats from a holistic perspective. The interactions and relationships between mind and body, as well as person and environment are continuously considered.

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. **Normalizes Client Experience and Balances Power Differential.**
Definition: Clinician emphasizes the ubiquity of human suffering, and normalizes psychological distress. The therapeutic alliance is less hierarchical in mindfulness-based treatment. Equality between clinician and client is promoted through clinician's personal mindfulness practice, modeling, and self-disclosure (e.g. how skills function in his/her life).

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. Prioritizes Optimization of Skillfulness (more than remediation of pathology)
Definition: Clinician emphasizes the optimization of skillfulness and long-term adaptive responding over the remediation of 'symptoms' per se or psychopathology. Clinician targets second order change through cultivating mindfulness skills and processes as an alternative to maladaptive avoidance.

Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Promotes Pattern Recognition.
Definition: Clinician conducts ongoing functional analyses to identify and promote client awareness of automatic reactivity (thoughts, emotions, bodily sensations, impulses, and behaviors) and the relationship between components of experience.

Strongly Disagree Disagree Neutral Agree Strongly Agree

1) **Please add any core common elements, which you believe essential to effective mindfulness-based practice.**

2) **Additional comments/suggestions for improvements to future analyses.**

APPENDIX E

TREATMENT DEVELOPER RECRUITMENT EMAIL

Treatment Developer Recruitment Email

From: Kristen Kochamba, Clinical Psychology Graduate Student, Azusa Pacific University
Subject: Request for Expert Opinion in Verification of common elements!

Dear Dr. ____,

Thank you for taking the time from your busy schedule to open this email! My name is Kristen Kochamba and I am a doctoral candidate in clinical psychology seeking validation of the findings of my research project from the experts in the field. I am particularly hopeful that you will offer your opinion as ____ has had such a large influence on my clinical skill sets and outcomes with more challenging clients!

My dissertation is a replication study of the analysis conducted by Lara Fielding (2009) and seeks to gain better understanding of the core common elements of the Mindfulness-Based Evidence Supported Treatments (MB-ESTs). Our hope is that these elements may serve as benchmarks for clinicians in the field seeking to adhere to the APA mandate on evidence based practice in psychology (EBPP) when full adherence to manuals is not an option. To achieve this goal, I have conducted a qualitative content analysis of the MB-ESTs (MBSR, DBT, ACT, MBCT, MBRP, MB-EAT).

I would be most grateful for your contribution as the ultimate expert and treatment developer of ____! Your opinion will be invaluable in validating the common elements that have been identified and will only take 5-10 minutes from your busy schedule.

The survey is completely anonymous and confidential and it is voluntary, so you can opt out at any time.

To access the survey please click here: https://www.surveymonkey.com/r/CE_MBEST

Questions about this survey? Email: kristen.kochamba@gmail.com

I sincerely hope that you will be willing to lend your expert eye. Thank you for your time and consideration.

Respectfully,

Kristen Kochamba, M.A.
Doctoral Student in Clinical Psychology
Azusa Pacific University
kristen.kochamba@gmail.com
(818) 384-6631

APPENDIX F

LIST SERV RECRUITMENT EMAIL

List Serv Recruitment Email

From: Kristen Kochamba, Clinical Psychology Graduate Student, Azusa Pacific University
Subject: Calling all Mindfulness CBT Experts! Need Verification of Common Elements!

Greetings Esteemed Clinicians:

I am seeking experts like yourself to strengthen my contribution to the field of mindfulness-based evidence based practice.

My name is Kristen Kochamba and I am a graduate student in clinical psychology at Azusa Pacific University. My dissertation is a replication study of the analysis conducted by Lara Fielding (2009) and seeks to gain better understanding of the core common elements of the Mindfulness-Based Evidence Supported Treatments (MB-ESTs). These elements may serve as benchmarks for mindfulness-based evidenced-based practice in adherence to APA's mandate on evidence based practice in psychology (EBPP). To achieve this goal, I have conducted a qualitative content analysis of the MB-ESTs (MBSR, DBT, ACT, MBCT, MBRP, MB-EAT).

I would be most grateful for your contribution as a respected expert in one or more of these treatments. Your expert opinion will be invaluable in validating the common elements that have been identified.

As clinical scientists, I know we all value bridging the gap between the research lab and clinical work in the office. With just 5-10 minutes of your time, you can help me in my aim of contributing to this bridge!

The survey is completely anonymous and confidential and it is voluntary, so you can opt out at any time.

To access the survey please click here: https://www.surveymonkey.com/r/CE_MBEST

Questions about this survey? Email: kristen.kochamba@gmail.com

I sincerely hope that you will be willing to lend your expert eye. Thank you for your time and consideration.

Sincerely,

Kristen Kochamba, M.A.
Doctoral Student in Clinical Psychology
Azusa Pacific University
kristen.kochamba@gmail.com

APPENDIX G

COGNITIVE BEHAVIORAL THERAPY (CBT) ELEMENTS

Cognitive Behavioral Therapy (CBT) Elements

CBT Element	Operational Definition
1. Agenda Setting	At the beginning of each session, the therapist and patient together establish an agenda with specific target problems to focus on during each session. The agenda helps insure that the most pertinent issues are addressed in an efficient manner. Strategies include using a session bridging worksheet, a brief resume of the patient's experiences since last session, which includes relevant events of the past week, discussion and feedback regarding homework, and the patient's current emotional status (as indicated by the BDI score, Anxiety Checklist score, and patient's verbal report of progress) (Beck, 1979).
2. Assessment/ Case Formulation	The therapist uses assessments tools to measure client's symptoms and progress in the therapy sessions. The therapist conceptualizes the client based on the cognitive model, which hypothesizes that people's emotions and behaviors are influenced by their perception of events. It is not the event itself, but rather how their perceive the event that determines its emotional impact (Beck, 1964).
3. Psychoeducation/ Skills training	An interactive and guided method of teaching and instruction. The therapist uses information gathered from interview with the client and guides the client through a

	description of the CBT model as it applies to the client, explaining how thoughts, beliefs, and behavior affect mood (Beck, 1979).
4. Feedback	The therapist should work to carefully elicit the patient's positive and negative reactions to all aspects of therapy. Feedback also includes checking to be sure that the patient understands the therapist's interventions, formulations and line of reasoning, and the therapist has accurately understood the patient's main points (Beck, 1979).
5. Understanding	The therapist accurately communicates an understanding of the patient's thoughts and feelings. "Understanding" refers to how well the therapist can step into the patient's world, see and experience life the way the patient does, and convey this understanding to the patient. Understanding incorporates what other authors have referred to as listening and empathic skills (Beck, 1979).
6. Interpersonal effectiveness	The cognitive therapist should display optimal levels of warmth, concern, confidence, genuineness, and professionalism (Beck, 1979).
7. Collaboration	One of the fundamental precepts of cognitive therapy is that there be a collaborative relationship between the patient and therapist. This collaboration takes the form of a

	therapeutic alliance in which the therapist and patient work together to fight a common enemy: the patient's distress. Strategies include rapport, balancing structure against patient autonomy, focusing on problems both patient and therapist considers important, and explaining rationale for interventions (Beck, 1979).
8. Guided discovery	The cognitive therapist often uses exploration and questioning to help patients see new perspectives where other therapists use debating or lecturing. The cognitive therapist attempts to avoid "cross-examining" the patient or putting the patient on the defensive. Strategies include Socratic questioning (Beck, 1979).
9. Homework/Self-Monitoring	The therapist assigns homework "custom-tailored" to help the patient test hypotheses, incorporate new perspectives, or experiment with new behavior outside the therapy session. The therapist should also review homework from the previous session, explain the rationale for new assignments, and elicit the patient's reaction to the homework (Beck, 1979).
10. Progress Monitoring/Targets Barriers to Progress	Strategies include uncovering the existence of a problem, conceptualizing problems (is it related to the diagnosis, therapeutic alliance, structure/pace of session, socialization of the patient, dealing with automatic thoughts, goals, or

	patient's processing of the session content?), and remediating the problem (Beck, 1979).
11. Focusing on key cognitions and behaviors	To conceptualize the problems the client wishes to change, the therapist must elicit and identify the key automatic thoughts, underlying assumptions, behaviors, etc. that comprise the problem. These specific cognitions and behaviors then serve as targets for intervention. Desirable therapist strategies for eliciting automatic thoughts: imagery, role playing, noting mood shifts during the session, daily record of dysfunctional thoughts, and ascertaining meaning of events (Beck, 1979).
12. Testing automatic thoughts	Once the therapist and patient have identified a key automatic thought, the therapist asks the patient to suspend temporarily his/her conviction that the thought is undeniably true and instead to view the thought as a hypothesis to be tested. The therapist and patient collaborate in gathering data, evaluating evidence, and drawing conclusions. Strategies include: examining available evidence, setting up an experiment, inductive questioning, operationalizing a negative construct and defining terms, reattribution, and generating alternatives (Beck, 1979).
13. Modifying Schemas	The cognitive therapist emphasizes questioning in the modification of underlying assumptions. Strategies

	include cognitive response prevention, and listing advantages and disadvantages (Beck, 1979).
14. Behavioral techniques	The therapist uses a variety of behavioral techniques to help the patient cope better with situations or inter-personal problems. These behavioral techniques are "action-oriented" in the sense that patients practice specific procedures for dealing with concrete situations or for using time more adaptively. In contrast to strictly cognitive techniques, therefore, behavioral techniques focus more on how to act or cope than on how to view or interpret events. Techniques include activity scheduling, graded tasks, mastery-pleasure exercises, breathing control, contingency contracting and behavior exchange, desensitization and relaxation training, exposure and flooding, and social skills training (Beck, 1979).
15. Relapse Prevention	The therapist helps the client formulate a relapse prevention plan and extend treatment beyond the completion of therapy. Strategies include: responding to concerns about tapering sessions & termination, reviewing what was learned in therapy, set a self-therapy plan, preparing for setbacks after termination, and schedule booster sessions (Beck, 1995).

APPENDIX H

CURRICULUM VITAE

Curriculum Vitae

EDUCATION:

2012 – 2017	**PsyD Clinical Psychology** (APA Accredited Program).
2012 – 2014	**MA Clinical Psychology**
2007 – 2011	**BA Sociology**

SUPERVISED CLINICAL EXPERIENCE:

8/2016 – present	**Pre-Doctoral Clinical Psychology Intern (APA Accredited)** ***Loma Linda University, School of Medicine (LLUSM)***
9/2015 – 8/2016	**Adult CalWORKs CBT Extern** ***Adult Outpatient Psychiatry Clinic, Harbor-UCLA Medical Center***
8/2015– 8/2016	**Assessment Clerk** ***Community Counseling Center, Azusa, CA***
1/2015– 7/2015	**OCD Exposure Extern** ***Adult OCD Intensive Treatment Program, UCLA Semel Institute for Neuroscience and Human Behavior***
8/2014– 8/2016	**Psychological Assistant, CA Board of Psychology, 94021030** ***Michael E. Cameron, PhD, Private Practice, Westwood, CA***
6/2014– 12/2014	**Behavioral Health Extern** ***Healthy Hearts Behavioral Medicine Program, UCLA Semel Institute for Neuroscience and Human Behavior***
5/2013 – 8/2016	**Chief Psychology Extern** ***Adult Anxiety Disorders Program, UCLA Semel Institute for Neuroscience and Human Behavior***
7/2013 –8/2014	**Psychology Extern** ***Student Counseling Center, Azusa Pacific University***