Mindfulness as a Key Construct in Modern Psychotherapy

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Throughout the history of modern psychotherapy, therapists from traditions as disparate as behavior modification (De Silva, 1984) and psychoanalysis (Fromm, Suzuki, & De Martino, 1960) have looked to the mindfulness traditions for guidance and inspiration. Some have argued that mindfulness processes are inherent to virtually any approach to psychotherapy that considers human suffering in depth (e.g., Deikman, 1982). But it is only more recently, however, that the concepts and methods of mindfulness in clinical practice have become both central and empirical.

As this very book attests, in the last decade contemplative practice and other mindfulness methods have become common therapeutic interventions in their own right. There are a number of obvious reasons. There is an ample and growing database of support for the benefits of acceptance and mindfulness-based methods for improving health; health behaviors; mental health problems such as anxiety, depression, and substance abuse; learning and concentration; as well as one's overall sense of well-being (Baer, 2003; Greeson, 2009; Hofmann, Grossman, & Hinton, 2011; Hofmann, Sawyer, Witt, & Oh, 2010; Ostafin & Marlatt, 2008). Mindfulness methods appear to have preventative benefits as well. Mindfulness skills are relatively easy and inexpensive to teach in individual and group formats (Bishop, 2002), and are now widely available through a growing number of spiritual and self-help books, lectures, websites, podcasts, phone apps, retreats, centers, and courses. All these developments have worked in synergy to facilitate the advancement of mindfulness as a central focus of attention from clinical practitioners, clinical researchers, and indeed the public at large. With that increase in attention has come a similar increase in attempts to define mindfulness concepts, to refine their understanding, to measure them through self-report and neurobiological means, to understand the processes that account for their impact, and to learn how to modify those processes.

In this chapter, we consider some of the views of mindfulness that seem to apply most directly to psychotherapy and examine some of the more predominant clinical approaches that attempt to alter mindfulness processes. We briefly review

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the data bearing on these methods. These methods and definitions are examined in more detail elsewhere in this volume, so our review will be brief since our purpose is to set up a more unique focus: *why* is mindfulness a key construct in modern psychotherapy *now*? We examine several reasons and argue that the rise of mindfulness as a focus is based on the modern cultural encouragement of unhealthy processes that are directly antithetical to mindfulness processes. Said more directly, mindfulness is becoming more central in psychotherapy now, because it is more central to what people need from psychotherapy now. Finally we note features of mindfulness that our analysis suggests are central to experiencing their full benefit in the context of the current social and psychological needs of people.

Clinical Definitions of Mindfulness

Mindfulness is notoriously difficult to define in a psychologically precise way. That is not surprising given its deep roots in the spiritual and religious aspects of lay culture. There are almost no examples in psychology of terms that arise from everyday use later achieving widely agreed-upon technical precision—as terms such as thought, emotion, self, or personality will readily attest. Prescientific lay terms are universally "fuzzy sets."

Given that, it is a fool's errand to try to reach agreement on what mindfulness *is* and it is especially useless to hold up progress until such an agreement is obtained. Definitions of "mindfulness" need instead to be linked to the practical task of orienting practitioners and researchers to an area or a domain in which various technical accounts can then be explored and tested. Even at the gross level of domain, however, the term has conflicting uses (Shapiro, Brown, & Biegel, 2007). The term "mindfulness is treated sometimes as a technique, sometimes as a more general method or collection of techniques, sometimes as a psychological process that can produce outcomes, and sometimes as an outcome in and of itself" (Hayes & Wilson, 2003, p. 161).

Our purpose is to try to understand mindfulness as a central issue in psychotherapy. In that context one of the least informative uses of the term is to use it to refer to techniques and sets of techniques, disconnected from a formal process of change or specific outcomes. It is common to see people talking of "mindfulness techniques" as either techniques that are directly rationalized using the term or those that look similar to those methods. For example, contemplative practices in Eastern religious traditions are "mindfulness techniques" and only things that look like them belong in the set. The problem is that such a use is based on appearances, accidents of history, or vagaries of self-description. In the absence of information about the processes they engage, such terms quickly become scientifically meaningless once hard questions are asked. If Vipassana style contemplative practice is agreed to be a mindfulness technique on that basis, what about yoga, progressive muscle relaxation, chanting, or just sitting in silence at the kitchen table? There seems to be no place to draw the line.

A more defensible approach is to delineate the targeted processes or the outcomes of such methods in broad terms. The definition offered by Kabat-Zinn is the most ubiquitous one of that kind: "the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment" (2003, p. 145). Note that this defines mindfulness both as an outcome (a type of awareness) and as a process (that arises by paying attention in a particular way). Marlatt and Kristeller took a more purely process focus by referring simply to "bringing one's complete attention to the present experience on a moment-to-moment basis" (1999, p. 68). Ellen Langer took a very different approach by considering response flexibility and effectiveness while addressing the inverse of mindfulness: "mindless in the sense that attention is not paid precisely to those substantive elements that are relevant for the successful resolution of the situation. It has all the external earmarks of mindful action, but new information actually is not being processed. Instead, prior scripts, written when similar infor-

mation really was once new, are stereotypically reenacted" (1978, p. 636).

If you look across the many definitions of that kind that are available, several features stand out as part of the "fuzzy set" (Fletcher & Hayes, 2005). We will note five. First, mindfulness methods attempt to teach people to purposefully direct one's attention to the present in a flexible, fluid, and voluntary way. Many definitions speak of mindfulness this way, for example, as "the self-regulation of attention" (Bishop et al., 2004), "paying attention in a particular way …" (Kabat-Zinn, 1994), and being "actively engaged in the present" (Langer, 2000). Second, these methods are designed to help people take a nonjudgmental approach of "observing, describing, and participating" (Dimidjian & Linehan, 2003) or decentering (Segal, Williams, & Teasdale, 2002) from psychological content. The third quality is well described by Bishop et al. (2004): an orientation toward experience "that is characterized by curiosity, openness, and acceptance." The fourth is a quality of effectiveness (Dimidjian & Linehan, 2003) or flexibility (Langer, 2000). And finally there is the fostering of a transcendent or interconnected quality of consciousness and perspective taking as is referred to by such terms as the observing self (Deikman, 1982), or big mind (Merzel, 2007). We will take all five of these features as an orienting set: *mindfulness involves deliberate, nonjudgmental, and accepting attention to what is present, so as to foster more conscious, interconnected, flexible, and effective styles of interacting with the internal and external world.*

The Modern Clinical History of Mindfulness

A focus on mindfulness is thousands of years old and from the beginning of psychotherapy, major leaders in psychotherapy have discussed the relationship of psychotherapy to mindfulness methods (Dryden & Still, 2006). For example, Carl Jung, in a preface to D. T. Suzuki's *Introduction to Zen Buddhism*, described psychotherapy as the primary aspect of Western culture that shared Buddhism's aspiration to enlightenment (Suzuki, 1948). Eric Fromm said that "knowledge of Zen, and a concern with it, can have a most fertile and clarifying influence on the theory and technique of psychoanalysis" (1960, p. 140). In a somewhat similar way, popular writers about eastern topics such as Alan Watts argued that meditation practices and psychotherapy have a common goal, releasing the individual from attachment to the ego and its resulting sense of isolation from others (1961), and persons who would later have a large influence on psychotherapy such as Daniel Goleman (1977) wrote extensively on mediation practices. None of these developments, however, profoundly altered psychotherapy itself.

The widespread integration of mindfulness practices into evidence-based psychotherapy is a much more recent phenomenon. The penetration of mindfulness has been in part empirically driven, but that too in not a fully adequate explanation. Research work on transcendental meditation (TM), beginning in the 1970s, never penetrated mainstream clinical perspectives; that may be because TM never achieved adequate scientific explanation (Ospina et al., 2007), but a larger reason is revealed by work that did begin to penetrate the behavioral health professions.

In the mid-1970s, Herbert Benson and colleagues (1974) demystified the focused meditation of TM into a method he termed the "relaxation response." Benson's simple meditation method was applied to the treatment of a variety of behavioral health problems (e.g., hypertensive patients) with good effects, similar to those achieved with other relaxation approaches (Kerr, 2000). Benson himself was an early advocate of the integration of psychotherapy with other forms of mindfulness meditation (Kutz, Borysenko, & Benson, 1985). Benson's method penetrated psychotherapy because he systematized the methods, stripped them of unnecessary spiritual and religious trappings, spoke about them in a largely naturalistic fashion, and subjected them to empirical test.

In the late 1970s, Jon Kabat-Zinn (1982) and his colleagues established Mindfulness-Based

Stress Reduction (MBSR) for medical patients with chronic pain, and stress and lifestyle-related health problems. As with Benson, his work helped simplify existing meditation traditions. MBSR participants were asked to attend a series of short classes and a retreat (Kabat-Zinn, 1990) and to commit to 45–60 min of daily structured meditation or meditation and yoga (Klatt, Beckworth, & Malarky, 2009). Kabat-Zinn also carefully systematized his methods, and removed spiritual trappings. Even the name included terms ("stress reduction") that were humble and common sense, and he subjected the methods to empirical test.

In a separate line of inquiry beginning in the 1980s, social scientist Ellen Langer was studying the applications of her flexibility-based view of mindfulness to changing human behavior in areas as diverse as education (Langer & Weinman, 1981), gerontology (Perlmuter & Langer, 1983), and decreasing prejudice and discrimination (Langer, Bashner, & Chanowitz, 1985) and other social behaviors. Langer's work impacted the social sciences more broadly, rather than psychotherapy per se, but her focus on flexibility remains a key influence in mindfulness-based psychotherapy methods.

None of these methods were forms of psychotherapy per se, but the decision to systematize them, move them out of a religious context, and test them opened the door for additional steps in integration. That did not happen immediately—but it did happen, and the modern wave of mindfulness in psychotherapy emerged in the 1980s and 1990s. The trend can in part be traced to the emergence and impact of dialectical behavior therapy (DBT), mindfulness-based cognitive therapy (MBCT), and acceptance and commitment therapy (ACT).

DBT was first described in written form by Marsha Linehan in 1987. She herself studied with Buddhist teachers and has acknowledged how radical the incorporation of mindfulness into therapy once seemed, joking that she had been tempted to call her treatment "Zen Behavior Therapy" and decided on DBT because the former sounded so unscientific (Linehan, 1993). Linehan believed that mindfulness practice could be helpful in facilitating emotion regulation in persons with borderline personality disorder (Dryden & Still, 2006), but DBT encompassed a far wider set of methods, with extensive emphasis on skills training.

Linehan's early outcome trials (e.g., Linehan, Armstrong, Suarez, & Allmon, 1991) captured the attention of cognitive behavior therapy researchers around the world. Interested in finding a better approach to deal with relapse in depression, John Teasdale, Zindal Segal, and Mark Williams initially explored DBT as a possible approach but were directed to Jon Zabat-Zinn and MBSR. The result was MBCT (Segal et al., 2002). In MBCT, the hope was that mindfulness practice would facilitate patients' ability to decenter—to step back from thoughts and feelings that lead to the relapse spiral (Dryden & Still, 2006).

ACT (Hayes, Strosahl, & Wilson, 1999, 2011) was first written about conceptually by Hayes in 1984, and technologically 3 years later (Hayes, 1987). The use of guided meditations and contemplative exercises (e.g., body scans; watching thoughts with an open focus) was extensive in the early protocols, but the methods were not discussed using mindfulness as a term until the actual research on ACT began to appear several years later.

In the 2000s, mindfulness virtually exploded in psychotherapy. At the beginning of the decade a search of the psychology databases showed a couple of dozen articles a year on the topic. As integrative texts began to appear such as *Mindfulness and acceptance: Expanding the cognitive behavioral tradition* (Hayes, Follette, & Linehan, 2004) or *Mindfulness and psychotherapy* (Germer, Siegel, & Fulton, 2005) that number was up three times. By the end of the decade, dozen of *books* on these topics were appearing each year and the number of articles was up more than tenfold (see Fig. 11.1). Hardly a psychotherapy convention could be held without numerous sessions on mindfulness and acceptance, many of them overflowing with attendees.

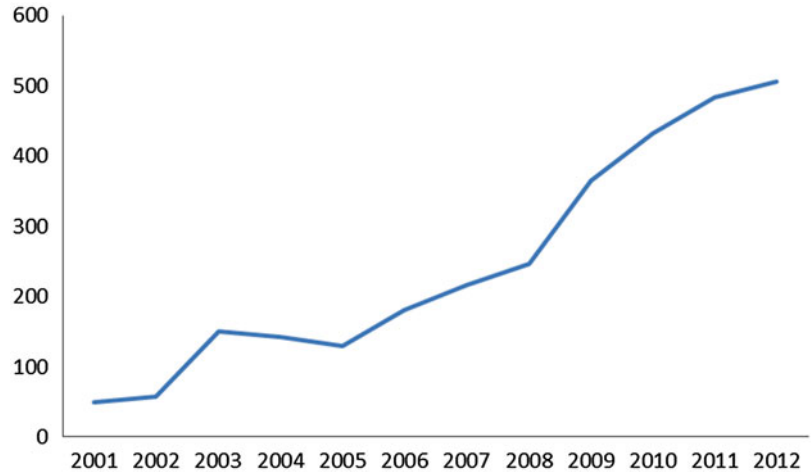

Fig. 11.1 Number of publications with the word "mindfulness" or "meditation" in the abstract in the years 2001–2012 in peer-reviewed journals in psycINFO database

Why Now?

Given the long history of mindfulness as an issue in psychotherapy, why has it exploded over the last decade? Some of these reasons have already been covered, but we think that this question is key to understanding the relationship of mindfulness and modern psychotherapy itself.

Research Developments

One major reason we have already alluded to is the emergence of significant research on mindfulness processes and methods. The key decision by early developers such as Kabat-Zinn and Benson to manualize their procedures and to eliminate religious trappings, combined with an interest in research, set the stage for this process. The advent of major empirically based psychotherapies such as MBCT, DBT, and ACT on the stage completed that process. Both DBT and ACT are listed as "evidence-based" by Division 12 of the American Psychological Association (www.Div12.org/PsychologicalTreatments/index.html) and by the National Registry of Evidence-based Programs and Procedures maintained by the US Substance Abuse and Mental Health Services Administration (www.nrepp.samhsa.gov/), and there is a substantial body of evidence, both outcome and process, for the importance of mindfulness methods.

These research developments in mindfulness as an important process in psychotherapy occurred simultaneously with empirical difficulties elsewhere in psychotherapy research. For instance, the effect sizes for psychotherapy do not appear to be increasing (Wampold, 2001); the processes of change and active components of mainstream evidence-based methods often suggest that the underlying theories require work (Hayes, 2004; Longmore & Worrell, 2007); the syndromal approach championed by the DSM has failed to yet identify diseases with distinct etiologies and methods of intervention (Kupfer, First, & Regier, 2002) and the attempts to deal with that fact seem to be creating greater chaos (Frances, 2010); and the adoption of evidence-based methods by practicing clinicians has been somewhat limited (Sanderson, 2002). Thus, the field is ripe for the emergence of new approaches such as mindfulness.

Strategic Changes

In part in response to the empirical problems listed above, there is a growing emphasis on

transdiagnostic models of psychopathology (e.g., Barlow, Allen, & Choate, 2004; Harvey, Watkins, Mansell, & Shafran, 2004). Perhaps no goad has been greater in that process than rapid decline in support for a syndromal approach to knowledge development. The report of the American Psychiatric Association planning committee for the fifth version of the Diagnostic and Statistical Manual (Kupfer et al., 2002) shows that there is a lack of support for a syndromal approach. The authors point out the lack of laboratory markers for specific syndromes, high comorbidities, and a tendency to pathologize ordinary human experience. They conclude that the practice of regarding DSM-IV diagnostic categories as equivalent to diseases may hinder research on etiology.

As alternatives to syndromal classification have been sought, one of the more dominant ideas is to identify pathological processes that broadly inform treatment decisions across a wide range of difficulties (Harvey et al., 2004). Mindfulness-based processes are among the most important set of such processes. For instance, Baer and colleagues (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) reported that measures of mindfulness are negatively correlated with measures of psychological variables associated with a number of psychological problems including neuroticism, thought suppression, alexithymia, dissociation, and psychological symptoms. Further, mindfulness is positively associated with variables associated with psychological health such as openness to experience and self-compassion. Findings such as these suggest that mindfulness processes may be broadly applicable to the treatment of psychological suffering.

Cohort Effects

There is a joke among evidence-based therapy researchers that the reason mindfulness is now taking center stage is that the hippies have grown up. Although this is said in jest, there is a grain of truth to it. The late 1960s and 1970s were a time of cultural upheaval. The hippie movement was associated with a rejection of traditional middle-class values, and embraced a present moment focus. Many in the movement were drawn to mysticism, cosmology, and the occult (Levin & Spates, 1970) and to associated mindfulness practices. Current academics in their late 50s and 60s both grew up in that era and are now the senior leaders of our field including popular mindfulness authors and in addition to those developing treatment methods, editors, leaders in grant funding organizations, magazine writers, television producers, and so on. Few of these persons would today recommend much of what they experimented with as youth (no one in evidence-based psychotherapy would today embrace "tune in, turn on, drop out" as a healthy principle of living) but mindfulness methods and concepts capture much of what seemed truly useful.

Technology and Cultural Changes

Perhaps the biggest change that may explain the rise of mindfulness methods, however, is social need. Human cultural changes sometimes occur slowly, but sometimes they occur very rapidly. The current era is clearly a time of rapid change due to the technological changes that have occurred in communications technology. These include all of the following.

The Rise of the Exposure to Words and Images

People today are exposed to orders of magnitude more words and images than were their forbearers. It has been reported that a person can easily view nearly half a million words upon viewing 200 web pages—thousands more than the 460,000 words in *War and Peace* (Bunz, 2009). The human mind did not evolve in such a context and it has happened so fast that cultural practices have barely had a chance to respond to whatever effects it has produced. At the very least it seems likely to have produced a busier, more intensely verbal human mind.

The Rise of Graphic Exposure to Negative Content

If anything truly disturbing occurs anywhere in the world you can know about it almost instantly via the Internet. Even 30 years ago there were

restrictions against placing graphic images of death and violence in the newspaper, never mind television. Today such images occur live on television and computer screens.

As communications media have fractionated into smaller and more discrete sectors it is easier to present material in a more and more evaluative context. Xenophobia and "flame wars" are rampant on the Internet. While social cliques and modern newspapers often took particular points of view, today it is possible to be exposed to a virtually constant diet of judgmental material. Since it is hard to control the target of human judgment this loose verbal cannon may also be increasing judgment of oneself, and a greater sense of shame and self-stigma.

Decrease in Physical Community

Changes in physical mobility, the centrality of neighborhoods, and cultural values and shriveled physical social institutions have occurred over the last few decades in America and around the world (Putnam, 2000). This is true in almost every area imaginable, from Sunday picnics to the Lion's club, from church attendance to the League of Women Voters. Extended families have become nuclear families that have become single-parent families. Neighbors can live next to each other for years and literally never speak. At the very least these changes seem likely to have produced a decrease in social support and reduced a sense of cooperation and shared sacrifice.

Increase in Virtual Community

Technology has also led, however, to the rise of virtual communities. There is now a virtual "we" that can be experienced on the Internet or on social networking sites. This may act as a counterbalance to the decrease in physical community, but it may also support more "us versus them" thinking which can fractionate social groups at a larger scale. While there are clear benefits to new technology, too much use of the Internet is associated with internet addictions, disruptions to social networks, neglect of work or school, and with decreased social skills and lower likability (Iacovelli & Valenti, 2009).

Why Now: The Bottom Line

We are arguing that the rise of mindfulness methods has to do with an increased interest in transdiagnostic processes, the weakening of alternative empirical approaches, cohort effects, and greater empirical support on the one hand, and cultural changes on the other. These cultural changes can be summarized as a simple possibility: mindfulness methods may be more central in psychotherapy today, because the human need for mindfulness is greater today. People are dealing with less compassion and social support, and greater encouragement of a busy, entangled, judgmental, and avoidant mode of mind. These engage processes that are known to increase human suffering; they also engage processes that mindfulness can help alter.

In a recent chapter (Hayes, Villatte, Levin, & Hildebrandt, 2011) we argued that modern mindfulness and acceptance methods (what we termed "contextual CBT") emphasize some or all of the three clusters of processes and methods. One cluster we termed "openness." This refers to a concern with acceptance, non-attachment, metacognition, defusion, emotional regulation, and the like. All mindfulness methods include procedures designed to reduce the automatic behavioral impact thoughts, feelings, memories, and bodily sensations, but without necessarily changing what they look like, or how often and where they occur. A second cluster we termed "awareness." This refers to attentional control, attention to the now, perspective-taking skills, increased compassion, greater sense of pure awareness, and the like. All mindfulness methods include procedures designed to increase awareness, contact with present, and an extended sense of consciousness. The third cluster we term "engagement." This refers to the enhancement of more flexible, pro-social, effective, compassionate, or values-based behavior, and a greater sense of connection with meaning and purpose. This aspect is perhaps most emphasized definitionally by Langer's view of mindfulness, but it is present in several of the current mindfulness methods in psychotherapy. Indeed, issues of "right action"

have always been emphasized in the spiritual roots of mindfulness practices.

Hayes et al. (2011) argued that "Like the legs of a stool, when a person is open, aware, and active, a steady foundation is created for more flexible thinking, feeling, and behaving. Metaphorically, it is as if there is greater life space in which the person can experiment and grow, and can be moved by experiences." Thus, all mindfulness methods seem to be "designed to increase the 'psychological flexibility' of participants by fostering a more open, aware, and active approach to living" (p. 160). This approach simplifies and summarizes the broader "orientation to the domain" summary we developed earlier: "mindfulness involves deliberate, nonjudgmental and accepting attention to what is present, so as to foster more conscious, interconnected, flexible and effective styles of interacting with the internal and external world."

Integration of Mindfulness into Contemporary Clinical Practice

With that simplified model in mind, we will briefly review a few forms of mindfulness-based interventions that have captured substantial empirical and conceptual attention. In each case we will summarize the interventions with an eye toward these processes of openness, awareness, and engagement.

MBSR, MBCT, MBRP

The grandfather of many mindfulness-based therapies, including MBCT and Mindfulness-Based Relapse Prevention (MBRP: Witkiewitz, Marlatt, & Walker, 2005), is MBSR (Kabat-Zinn, 1990). As other methods have emerged that are fairly direct translations of contemplative traditions, such as loving-kindness meditation (e.g., Carson, Keefe, Lynch, Carson, & Goli, 2005), Lojong meditation (Pace, Negi, Adame, Cole, & Sivilli, 2009), and Compassionate Mind Therapy (Gilbert, 2009), they have tended to follow the MBSR formula in broad terms: establishment of structured series of experiences that establish mindfulness skills.

MBSR consists of a group program (generally 8 weeks) that teaches contemplative practice skills. The methods include sitting meditation, body scans, and use of mindfulness during everyday activities. There are also group discussions, psychoeducation, yoga, and intensive out-of-session practice (Kabat-Zinn, 1982). Longer MBSR meditation retreats are available and are included in some programs.

The focus of these methods is on creating a focused, purposeful awareness of the present moment and relating to private experiences in an open, nonjudgmental, and accepting manner (Baer et al., 2006; Kabat-Zinn, 1994). In present terms, there is a great emphasis on openness and awareness. For example, present moment awareness and attentional control are used in the body scans, yoga, and contemplative practice sessions, so as to undermine processes such as rumination, worry, and self-criticism.

MBCT bears a strong resemblance to MBSR, but the psychoeducational elements and the content and focus of exercises are more specifically psychotherapeutic. As originally developed, MBCT targeted in particular the negative thinking patterns that are reactivated by and that support entanglement with dysphoric moods, such as self-criticism and rumination. A key practice in MBCT is decentering, which is observing thoughts and feelings as temporary cognitive events that are not necessarily true about the self (Fresco et al., 2007). Decentering from difficult thinking patterns was argued to produce less automatic reactivity and behavioral compliance. Throughout each element, participants are taught to notice difficult thoughts, feelings, and sensations in a nonjudgmental and open manner

Evidence

MBSR, MBCT, and related methods produce medium to large within-group effect sizes on anxiety and depression that persist through follow-up (for a recent meta-analysis of 1,140 patients from 39 studies see Hofmann et al., 2010).

Similar effects are seen in a wide variety of other problem areas including pain, coping with

health problems, and substance-use disorders (Grossman, Niemann, Schmid, & Walach, 2004; Zgierska et al., 2009). An analysis by Greeson (2009) found evidence for efficacy for improving well-being and quality of life and reducing mood and stress symptoms in persons with stress-related illnesses including psoriasis, type 2 diabetes, fibromyalgia, rheumatoid arthritis, and chronic low-back pain. Some of the newer specific varieties have less support as of yet, but the evidence so far is similar (e.g., see Bowen et al., 2009). There is some evidence that these methods are more helpful with more chronic problems (Ma & Teasdale, 2004; Teasdale et al., 2000) although it is not yet known why. These methods increase self-reported decentering and present moment awareness, and reduce judgmental thinking (e.g., Carmody, Baer, Lykins, & Olendzki, 2009) which relates to outcomes (e.g., Shapiro et al., 2007; 2008, Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). Perhaps as a result, depressed mood evokes fewer depressive thoughts (Raes, Dewulf, Heeringen, & Williams, 2009). There are theoretical oddities in the literature however. For example, the amount of training or at-home meditation does not seem to explain outcomes (Carmody & Baer, 2009; Vettese, Toneatto, Stea, Nguyen, & Wang, 2009).

Dialectical Behavior Therapy

DBT was originally developed for borderline personality disorder (BPD), but it has gradually become a method for a variety of disorders involving emotion dysregulation. The term "dialectical" refers to the opposing forces that exist in clinical cases and that need to be managed in treatment. For example, mindfulness, acceptance, and validation strategies promote acceptance, but they need to be balanced with behavior change strategies that promote change. Several modes of intervention are included: group skills training, individual psychotherapy, phone coaching, and group consultation for the therapist.

The heart and soul of DBT consist of training specific skills, especially as part of the group processes, including mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness skills. Mindfulness is trained through specific exercises and commonly includes homework practice. DBT includes components that explicitly target greater openness, awareness, and engagement.

Evidence

The empirical support for DBT is considerable, particularly in BPD (Lynch, Trost, Salsman, & Linehan, 2007) on outcomes such as suicidality, hospitalizations, and depression. It has also produced positive outcomes in the areas of eating disorders, substance use, and depression in older adults among several other areas (Lynch et al., 2007). Skills training appears to be a particularly important aspect of DBT (Soler, Pascual, Tiana, Cebria, & Barrachina, 2009) and use of these skills, including mindfulness skills, relates to improvements in BPD symptoms (e.g., Stepp, Epler, Jahng, & Trull, 2008). DBT is also known to reduce experiential avoidance, which in turn predicts later outcome changes (Berking, Neacsiu, Comtois, & Linehan, 2009).

Acceptance and Commitment Therapy

ACT (Hayes et al., 1999) uses acceptance and mindfulness techniques, and commitment and behavioral activation techniques, to produce psychological flexibility. It is one of the more broadly focused of the mindfulness methods in part because it was not developed with a specific disorder in mind, and in part because it has emphasized more flexible, values-based behavior, in addition to greater openness and awareness.

Psychological flexibility is the applied model that underlies ACT. It refers to the ability to contact the present moment, externally and internally, more fully and without needless defense, and based on what the situation affords, to persist or change in behavior in the service of chosen values. Six processes are argued to account for psychological flexibility: acceptance, defusion, flexible attention to the present moment, a transcendent sense of self, values, and committed

action. The first two are openness processes; the next two are awareness processes; the last two are engagement processes. These processes are taught to clients by means of experiential exercises, homework, metaphors, exploration of paradox, and use of the therapeutic relationship. Cognitive defusion might be facilitated by exercises that encourage viewing thoughts from afar, as if they are moving vehicles on a roadway (Hayes & Smith, 2005). Exercises to improve contact with the present are commonly used to train flexible attention to the moment. Exercises are used to establish more flexible perspective taking and to decrease attachment to the conceptualized self. Values, which in ACT are chosen life directions that establish reinforcers in the present that are intrinsic to patterns of action, are addressed in detail and all of the rest of therapy is linked to these values. Committed action consists of traditional behavioral activation and skill development techniques but the goal is to increase behavioral flexibility linked to values in the presence of previously repertoire-narrowing stimuli.

Evidence

As this chapter is being written there are exactly 116 randomized controlled trials published with ACT, over half of them in the last 3 years. Reviews show medium- to large-group effect sizes (see Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Öst, 2008; Powers, Vörding, & Emmelkamp, 2009; & Ruiz, 2010). What is most surprising is the range of phenomena addressed: depression, coping with psychosis, substance use, chronic pain, epilepsy, obsessive-compulsive disorder, diabetes management, reduction of prejudice toward people with psychological problems, helping drug and alcohol counselors learn and apply evidence-based pharmacotherapy, worksite stress, smoking cessation, obesity, adjusting to college, eating pathology, and other problems. The process evidence suggests that ACT alters psychological flexibility and its components, such as experiential avoidance, fusion, and values (Hayes et al., 2006). About two-thirds of the published randomized controlled trials have included mediational analyses which have suggested that flexibility and mindfulness processes are functionally important in producing outcomes (e.g., Gaudiano, Herbert, & Hayes, 2010; Wicksell, Olsson, & Hayes, 2010; Zettle, Rains, & Hayes, 2011). Behavioral in-session measures of psychological flexibility processes as early as session two have been successful in predicting positive outcomes in ACT (Hesser, Westin, Hayes, & Andersson, 2009). In several of these cases, more traditional cognitive measures have also been tested for mediation, and in all cases mindfulness and flexibility processes have proven more powerful (e.g., Wicksell et al., 2010; Zettle et al., 2011).

Summary

Even though mindfulness-based therapies are relatively new, the benefits of mindfulness practice are being widely studied in both clinical and non-clinical samples and in disciplines outside of behavioral health. Outcome research is supportive of the methods we have covered here, but the evidence is even more supportive when looking broadly at methods that target mindfulness processes (Hayes, Villatte et al., 2011). Mindfulness allows for openness to experience and supports acceptance and change efforts (Hofmann & Asmundson, 2008). Mindfulness methods help overcome the literal evaluative functions of language—our tendency to judge things we encounter and to take those judgments as literal truths about the world (Hayes & Wilson, 2003). These methods are highly acceptable to patients (Finucane & Mercer, 2006) and they produce good outcomes not just in traditional mental health areas but also in behavioral medicine and dealing with chronic disease (e.g., Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007; Vowles & McCracken, 2008). They can also be applied to more subclinical problems of stress (Chiesa & Serretti, 2009; Shapiro et al., 2008), including workplace stress (Bond & Bunce, 2000; 2003; Klatt et al., 2009; cf., Langer & Moldoveanu, 2000).

One striking feature of mindfulness-based treatments is that clinicians are encouraged or even required to themselves adopt mindfulness

practices. This is unlike any other treatment approach except perhaps psychoanalysis. In MBSR clinicians must follow strict training procedures; DBT and ACT encouraged clinicians to adopt mindfulness practices of their own and to apply these practices to themselves. In addition to perhaps facilitating skill in delivering treatment, there is a growing body of research that suggests that mindfulness practice is beneficial to the well-being and psychological flexibility of treatment providers. Krasner and colleagues (2009) found that participation in a mindful communication program was beneficial to primary care physicians in increasing mindfulness, empathy, and conscientiousness while decreasing burnout and mood disturbance. Counseling trainees reported improvements in stress management and greater consciousness of themselves and their clients after taking a course that emphasized mindfulness training (Christopher, Christopher, Dunnagan, & Schure, 2006). There is even evidence that mindfulness methods help clinicians learn other evidence-based methods (Varra, Hayes, Roget, & Fisher, 2008). Turner (2009) nicely summarizes the usefulness of cultivating mindfulness for clinicians: "Mindfulness skills training builds the clinicians qualities or skills of attention, affect regulation, attunement, and empathy" (p. 97).

The Future of Mindfulness and Psychotherapy

The very flexibility of mindfulness-based treatment approaches virtually guarantees that new developments will appear between the time this chapter is written and the time it appears in print. Given the ease with which mindfulness techniques can be delivered to clinicians and clients they will remain an appealing approach. And given the broad applicability to decreasing suffering and increasing desirable outcomes mindfulness-based approaches are likely to continue to flourish. However, many questions still remain. There are attempts to determine the best "dose" of mindfulness to determine how much or how little practice is needed for beneficial effects. Component analyses are needed to determine the relative importance of mindfulness practice in multicomponent treatments. Biological research on mechanisms of mindfulness, while relatively new, is growing in the search to find a neurobiological basis of the effects of mindfulness practice. Ultimately, empirical outcomes should lead to greater precision in defining mindfulness and related constructs and refining techniques to maximize treatment effectiveness.

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