THE MINDFULNESS & ACCEPTANCE PRACTICA

MINDFULNESS & ACCEPTANCE FOR ADDICTIVE BEHAVIORS

Applying Contextual CBT to Substance Abuse & Behavioral Addictions

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CHAPTER 1

Acceptance and Commitment Therapy for Addiction

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Acceptance and commitment therapy (ACT, pronounced as a word) is an approach designed to increase psychological flexibility—a way of living characterized by openness, awareness, and engagement (Hayes, Strosahl, & Wilson, 2011). Psychological flexibility can be described as willingness to accept all aspects of one's experience without engaging in unnecessary avoidance behaviors, when doing so serves the development of patterns of values-congruent activity.

ACT is grounded in traditional behavior analysis and relational frame theory (RFT)—a contemporary behavioral model of language and cognition (Hayes, Barnes-Holmes, & Roche, 2001; Törneke, 2010). The psychological flexibility model describes a set of six functional processes underlying much human suffering and adaptability: acceptance, defusion, present-moment awareness, self processes, values-based living, and committed action. The model describes functioning along a continuum, and the processes that are cultivated during treatment to promote

psychological flexibility are aimed at the prevention of psychological difficulties in the future.

The psychological flexibility model is *transdiagnostic*, meaning it identifies common mechanisms underlying an array of psychological difficulties. Transdiagnostic models are becoming increasingly common in the cognitive behavioral treatment development community (Barlow, Allen, & Choate, 2004; Mansell, Harvey, Watkins, & Shafran, 2009) and offer an alternative to the dominant diagnostic system based on syndromal classification (American Psychiatric Association, 2011).

One advantage of a transdiagnostic approach is that it allows researchers and clinicians to address the problem of comorbidity in a more effective and efficient way, in terms of both diagnosis and treatment. Among those who meet criteria for a substance use disorder, rates of comorbidity are quite high, approaching 18% for co-occurring anxiety disorders and 20% for co-occurring mood disorders (Grant et al., 2006). Whereas a clinician using syndromal classification may attempt to treat one diagnosis before addressing the other, a clinician using a transdiagnostic approach would attempt to identify and treat core processes that have led to a variety of symptom clusters. In this approach, many problems that are formally distinct become functionally unitary.

A description of the psychological flexibility model follows, with specific attention to addiction and related symptom presentation or patterns of dysfunction. Next, cultivation of the positive pole of each process is delineated as an approach to assessment and treatment.

A Psychological Flexibility Model of Addiction

Within the psychological flexibility model, addiction is conceived as a learned pattern of behavior. Although the etiology of addiction is somewhat controversial, few would argue against the idea that addiction involves entrenched patterns of behavior that require modification.

Although the six core processes are presented here as relatively distinct, it is important to note that there is a considerable degree of interaction among them. Any given stream of behavior could be viewed in terms of any of the six processes. For instance, when examining values,

it is often necessary to consider the ways in which fears, vulnerabilities, and avoidance (nonacceptance) and thoughts of inevitable failure (fusion) may distance people from behaving in accordance with their values. Therefore, intervention strategies might focus on one or several processes.

Difficulties with Present-Moment Processes

Difficulties with flexible and focused attention to the present moment often involve rigid focus on the past or future—in other words, rumination and worry. When the attention of a person with substance abuse problems is captured by evaluative stories about past or future failures, the result is detachment from experiences in the present and an inability to respond with sensitivity to events in the present moment and, ironically, to long-term consequences of behavior in the future. There is a paradox in rumination and worry. Both seem to hold promise and contain the seed of a solution (*If I go over the past or future carefully enough, I will avoid making or repeating mistakes*). However, neither is correlated with good functioning. For example, rumination has been shown to be predictive of drinking behavior in problem drinkers (Caselli, Bortolai, Leoni, Rovetto, & Spada, 2008; Caselli et al., 2010; Willem, Bijttebier, Claes, & Raes, 2011).

Some substance abuse patterns appear to be exquisitely focused on the present moment. Individuals may be acutely aware of moment-by-moment physical sensations and cravings. However, while sensitive to those particular physical sensations, they may be very insensitive to other aspects of their current situation. The cultivation of present-moment processes within the ACT model of psychological flexibility involves flexibility of attention. Fixed attention on a narrow range of present circumstances can have negative effects similar to those of fixation on past and future events.

Attention to the present moment is an important component of mindfulness. Jon Kabat-Zinn defines mindfulness as involving "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (1994, p. 4). Although mindfulness involves more than merely present-moment processes, its relation to problems seen in

addiction is highly relevant (see Wilson, 2009, for a book-length examination of mindfulness in the context of the therapeutic interaction from an ACT perspective). Both within and outside of ACT, mindfulness has received increased empirical scrutiny and has been found to be associated with the alleviation of symptoms concomitant with substance abuse, including depression and anxiety. Rumination has been shown to be predictive of relapse of major depressive disorder after mindfulness-based cognitive therapy (MBCT; Michalak, Hölz, & Teismann, 2011), and reductions in brooding have been found to mediate outcomes in MBCT (Shahar, Britton, Sbarra, Figueredo, & Bootzin, 2010). Mindfulness-based treatments have been shown to be effective in reducing worry in both clinical and nonclinical samples (Delgado et al., 2010; Evans et al., 2008; Vøllestad, Sivertsen, & Nielsen, 2011).

Difficulties with Self Processes

Consistent with the larger tradition of cognitive behavioral therapy (CBT), ACT emphasizes the importance of self processes in problems with addiction. From a CBT perspective, deficits in self-esteem or self-efficacy are thought to contribute to the etiology and/or maintenance of problems with addiction (Beck, Wright, Newman, & Liese, 1993). Generally, however, ACT highlights three distinct ways of relating to the self: self-as-content, self-as-process, and self-as-context (Hayes et al., 2011), each of which may be implicated in problems with addiction.

The first of the three processes, self-as-content, aligns most closely with mainstream conceptualizations of the self. Also known as "conceptualized self," this perspective involves categorization and evaluation through a narrative about one's personal attributes and roles. Becoming overly attached to the conceptualized self may reduce the likelihood of behaving in a flexible manner. For example, an individual attached to a role of being an addict may not be sensitive to opportunities to behave in ways uncharacteristic of addicts. From an ACT perspective, what is considered problematic is not the content of self-conceptualization, but the ways the conceptualized self can constrain behavior. The target of intervention is not the content, but the constraint.

The second way of relating to the self, self-as-process, is the ongoing awareness of one's internal experience (thoughts, feelings, urges,

memories, and so forth). Problems related to self-as-process may arise when people have difficulty attending to their ongoing internal experience in a flexible way. Many forms of therapy incorporate skill building in the area of self-awareness. For example, cognitive therapy for substance abuse involves keeping thought and mood records and developing an ability to notice and challenge urges (Beck et al., 1993). ACT practitioners emphasize this skill to perhaps a greater degree, encouraging their clients to cultivate an ongoing sense of mindful awareness of internal experience without being fixed on or defined by particular aspects of that experience. This ongoing awareness is often practiced directly in therapy sessions.

The third way of relating to the self, self-as-context, is also referred to as perspective taking. This way of relating to the self involves contacting a sense of self that observes or notices one's experience, and cultivating the ability to adopt the perspective of the self in the past, present, and future, as well as the perspective of others. Difficulties in processes related to self-as-context may take the form of inflexibility in perspective taking. Those who struggle with psychological difficulties such as substance abuse, depression, and anxiety often expend substantial inward-focused energy on attempts to problem solve and manage their experience.

This internal focus may interfere with several forms of perspective taking that could potentially help curb destructive addictive behavior. One issue is that a strong internal problem-solving focus may interfere with effectively taking the perspective of others, which may manifest as deficits in empathy or inability to consider others' perspectives when making decisions. Another issue is that a rigid internal problem-solving focus may impair temporal perspective taking. For example, those struggling with addiction often have considerable difficulty making contact with the sense of self that existed before the addiction and possible selves that might exist in the future. Fixed attention to momentary events, like strong physical cravings, can cause addicts to lose contact with a sense of self that transcends momentary events.

A recent study by Luoma, Kohlenberg, Hayes, and Fletcher (2012) demonstrates the disruption of the functional relationship between negative self-narrative and substance abuse. Interesting differences emerged between participants who received the standard twenty-eight-day residential treatment and those receiving an additional six hours of ACT

during the same twenty-eight-day treatment. At post-treatment, shame scores in the standard treatment condition were highly correlated with subsequent drinking. The shame scores of those who received ACT, though worse than those in the control condition, were not correlated with drinking at follow-up. Scores on measures of shame crossed over during the follow-up period such that ACT participants had improved in negative self-evaluations as compared to controls. These data suggest that positive self-evaluations *followed*, rather than *produced*, good substance use outcomes.

Experiential Avoidance

According to Hayes and colleagues (2011), "Experiential avoidance occurs when a person is unwilling to remain in contact with particular private experiences (e.g., bodily sensations, emotions, thoughts, memories, behavioral predispositions) and takes steps to alter the form, frequency, or situational sensitivity of these experiences even though doing so is not immediately necessary" (pp. 72-73). In other words, experiential avoidance is nonacceptance of one's inner experience. When people's existence is largely characterized by attempts to modify or avoid aversive internal stimuli, they become disconnected from engaging in the world; the effect is often a sense of emptiness and loss of vitality (Hayes et al., 2011).

Experiential avoidance is associated with multiple psychological difficulties, including substance abuse (Chawla & Ostafin, 2007; Hayes, Luoma, Bond, Masuda, & Lillis, 2006). It is not difficult to imagine how someone with an avoidant repertoire might become trapped in a pattern of substance abuse. Initial substance use might have many sources, including social inclusion, recreation, or coping with unwanted internal experiences (e.g., the self-medication hypothesis; see Khantzian, 1997). Persistent use can create life difficulties that, in turn, precipitate avoidant drug use, which may provide immediate, albeit temporary, escape from compounding stress. Moreover, once use is well established, attempts to quit may cause uncomfortable withdrawal symptoms, which, again, can be attenuated temporarily by continued use (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004). Whether attempts to regulate these aversive internal stimuli take the form of using a substance or trying to

suppress thoughts, feelings, or urges, individuals become trapped within a futile struggle to avoid their own experience.

Research has demonstrated the causal role of coping motives with regard to substance abuse (Cooper, Russell, & George, 1988). Additionally, research has shown that attempts to suppress substance-related thoughts tend to result in increases in the frequency of such thoughts (Palfai, Monti, Colby, & Rohsenow, 1997; Salkovskis & Reynolds, 1994; Toll, Sobell, Wagner, & Sobell, 2001). Conversely, acceptance of ongoing experience has been shown to weaken the link between urges and consumption (Bowen, Witkiewitz, Dillworth, & Marlatt, 2007; Ostafin & Marlatt, 2008).

Perhaps one reason treatment of addiction is so challenging is that the primary avoidance strategy—substance use—is so immediately effective. Drugs and alcohol produce a double bind: they can cause great difficulties, yet, over the short term, they are remarkably effective at helping people avoid those difficulties. Treatments often include engagement with difficult internal and external events (e.g., negative self-evaluations, memories of wrongdoings, emotional or physical discomfort, or damage to career or relationships).

Fusion

"Fusion" is a term used to indicate a tight functional linkage between a word and its referent (Hayes et al., 2011). Cognitive fusion becomes problematic when people attend solely to verbal events, rather than flexibly attending to a wider variety of internal and external events (Hayes et al., 2011). Potentially problematic cognitions might include thoughts about the efficacy of drugs in alleviating physical discomfort, doubts about success at quitting, doubts about the necessity or importance of quitting, and doubts about coping, among others.

The cognitive tradition emphasizes the importance of problematic thoughts. Beck's concept of the cognitive triad regarding depression applies similarly to those with substance abuse disorders; according to the cognitive model of addiction, negative thoughts about the self, the world, and the future may contribute to keeping someone stuck in addiction. As such, treatment involves helping clients identify and dispute or otherwise modify problematic thoughts (Beck et al., 1993). Contrary to

the cognitive perspective, from an ACT perspective the problem is not the content of thoughts; rather, it is the rigidity with which these thoughts organize behavior.

While the causal role of fusion has not yet been the target of systematic investigation in individuals abusing substances, studies have examined the role of defusion as a mechanism of change in patients with depression (Zettle, Rains, & Hayes, 2011) and psychosis (Bach, Gaudiano, Hayes, & Herbert, in press). Data from cognitive therapy for depression support this conception of the role of cognition in recovery. Jarrett, Vittengl, Doyle, and Clark (2007) found that changes in cognition followed, rather than preceded, improvements in depressive symptomology. In other words, contrary to the cognitive hypothesis, changes in cognitive content do not appear to be the causal mechanism responsible for improved outcomes. ACT interventions are aimed directly at producing this delinking of cognition and action. Paired with the data from Luoma and colleagues (2012) described above, this suggests that negative thoughts do not need to improve in frequency or form prior to good addiction outcomes; what is more important is to change the client's relationship to entangling thoughts.

Disruption of Values

In ACT, *values* are defined as "freely chosen, verbally constructed consequences of ongoing, dynamic, evolving patterns of activity, which establish predominant reinforcers for that activity that are intrinsic in engagement in the valued behavioral pattern itself" (Wilson, 2009, p. 66). Therefore, and stated more simply, disengagement with values can be considered a disconnection from life areas that one deems important.

Since deeply painful thoughts and feelings are often associated with valued domains, difficulties with values may involve avoidance of such aversive states and fusion with negative thoughts about the past and future. For example, an alcoholic might reduce his interactions with his wife because feelings of guilt and shame are likely to surface when they are together. Additional difficulties may take the form of an inability to verbalize what one values or confusion surrounding what one values. Repertoire-narrowing fusion may also occur in some valued domains.

For example, an individual may be so fused with parenting failures that resulted from drinking that she becomes insensitive to parenting opportunities that are currently available.

Values are also emphasized in motivational interviewing (MI), an approach used when individuals experience ambivalence regarding behavior change (Miller & Rollnick, 2002; see also Wagner, Ingersoll, & Rollnick, chapter 5 of this volume). According to MI, change is motivated by a perceived discrepancy between behavior and values. MI involves helping clients choose values and identify discrepancies between these values and current behavior, and in this regard MI is similar to ACT.

Some evidence suggests that attention to values may help with substance-related outcomes. For example, in a smoking cessation study, health concerns and wanting to set a good example for one's children were associated with successful quitting (Halpern & Warner, 1993). Intrinsic motivations to quit smoking (e.g., concerns about health) are predictive of greater success in cessation than extrinsic motivations (e.g., responding to social pressures to quit), which suggests that freely choosing values may promote cessation efforts (Curry, McBride, Grothaus, Louie, & Wagner, 1995; Curry, Wagner, & Grothaus, 1990).

Difficulties with Committed Action

Committed action involves engaging in valued patterns of activity and returning to that engagement upon noticing that actions have drifted from values (Hayes et al., 2011; Wilson, 2009). Although committed action is similar to the values process, there is a key distinction. The values process involves establishing qualities of ongoing patterns of activity as reinforcers, whereas committed action involves active, moment-to-moment engagement and reengagement in those patterns and their construction. An important feature of committed action is the gentle return to valued action upon noticing that one has veered off course.

Relapse to substance abuse provides a good example of the ACT approach to committed action. Once an individual has relapsed, engaging in committed action would involve returning to abstaining in the service of some value or values. In the ACT model, relapse to substance

abuse is treated in the same way as any other lapse in important valued action. First, the ways abstinence (or a goal of moderation) relates to a variety of valued domains is examined. Next, a pattern of activity that would make subsequent relapse less likely is generated. And finally, the client reengages in the valued pattern.

Depending upon the severity of substance abuse problems, individuals may have reduced or completely stopped engaging in committed action in multiple areas. For example, searching for the next fix or getting high may interfere with going to work, spending time with one's children, or eating a well-balanced diet. In addition, co-occurring depressive symptoms often contribute to general behavioral suppression, rendering committed action even more challenging. For some people, a low level of committed action may have preceded their problems with substances. It is possible that low levels of valued action increase attempts to avoid unpleasant thoughts and feelings that are exacerbated by the lack of valued action and the consequences of the inaction.

Other treatments also emphasize the importance of increasing activity. Behavioral activation (BA) is primarily used to treat depression by increasing contact with potential reinforcers (Martell, Dimidjian, & Herman-Dunn, 2010). Because depressive symptomology is common among people with substance abuse problems, these strategies are highly relevant. Cognitive therapy for substance abuse incorporates BA as a component of treatment (Beck et al., 1993). Activity monitoring and scheduling techniques are used to promote engagement in activities that are related to life goals clients were neglecting while using substances. MacPherson and colleagues (2010) examined the efficacy of BA in a sample of smokers with elevated depression symptoms. They found that smokers in the BA condition reported greater smoking abstinence and lower depressive symptoms than those in the standard treatment condition, which included nicotine replacement therapy and smoking cessation strategies. Such evidence lends support to ACT's emphasis on regular, ongoing behavioral engagement in valued activities.

Assessment and Intervention

In order to examine assessment and intervention, we will begin with a case study and partial opening dialogue with a client being treated using

ACT. We will then draw upon the hypothetical client to demonstrate ACT processes in treatment.

Case Study

Andrea is a thirty-seven-year-old, single, Caucasian female who is currently employed as an English teacher at a community college. Andrea has an older brother and a younger sister, and her parents are still married. All of her relatives reside in another state. After becoming employed at age sixteen, she started smoking marijuana on a daily basis and drinking alcohol on a near-daily basis. This pattern continued in her college and graduate-school years. During the past five years, the quantity of alcohol she consumes has increased.

Although she has engaged in this pattern of substance use over a long period, she has experienced few academic or employment problems. Her primary difficulties are most apparent in the interpersonal realm. This is not generally apparent to fellow students and coworkers, other than that they find her somewhat reserved. She reports no romantic relationships apart from extremely brief encounters, lives alone, and reports a markedly limited social life other than her interactions at work.

ACT Informed Consent and an Opening Session

A good and ethical place to begin any therapy is to provide a bit of informed consent so that the client has an idea of the direction and content of treatment. The following dialogue is an example of what shape this discussion might take when using ACT to treat substance abuse problems:

Therapist: Andrea, I know that you have become more and more concerned about your increase in drinking and your profound sense of isolation. The way you have described it, it is as if your life is sort of closing in on you—like it has gone from small but sufferable to a sort of prison. And in the midst of all of that, I hear a tiny kernel of longing, as if

there is an old, old sense that there would be more to life, maybe even a hope that you gave up on a long time ago.

Andrea: I don't know what you mean. I don't understand.

Therapist: I know I can be a little obscure. Sometimes I am feeling my way along in therapy, feeling for something that has a sense of life in it. That can be confusing. Would you look at me for a moment…right here, in my face, in my eyes? Can you see that I am sincere in this? Can you see that even though we have only begun our conversation, it matters to me that your life open up to something richer? So, without completely understanding just yet, can I ask a few more questions and speak to you a bit about what to expect in treatment with me?

Andrea: I guess so. I can't stand where I am.

Therapist: Yes, I get that.

Andrea: But richness? I don't get that at all.

Therapist: Yes, I understand that too. And, what if I am right about this sense? What if there is something more, something richer, just out of sight? Wouldn't that be worth a few more questions—a little more work for you and me? Here? Now?

Andrea: Sure. Let's do it.

Therapist: Some treatments for alcohol and drugs go pretty directly after the drug and alcohol use itself. Sometimes problems with drug and alcohol use get treated as if they are free-standing troubles, other than perhaps some recognition that they mess with your life. Acceptance and commitment therapy is focused on enriched living, on people living the freest and richest lives possible. I do not mean rich in conventional terms; I mean rich on your own terms—a life that you would call rich and meaningful. During, treatment we will cultivate a set of practices. I will not kid you about drugs and alcohol. When people have struggled with them, especially people who have struggled as long and hard as

you, the possibility of letting them go entirely may be necessary in the service of living well. However, I want you to note here that I will not be the one to determine if letting them go entirely is necessary. You will be making that choice on your own. I will offer invitations persistently throughout our therapy. If you give them a try, your own experience will tell you about their importance. However, I will ask that you persist with them for a while. Sometimes if we judge things on a very immediate basis, we miss their long-term effects. It's like going to the gym; sometimes it hurts at first. Sometimes you need to learn the difference between pain that is taking you to a better place and pain that is destructive. Part of our work will be about learning to notice that difference. In fact, right now we can check it out with getting drunk itself.

Andrea: Okay. What do you mean?

Therapist: When you get home, I am guessing that sometimes you have promised yourself not to drink that night.

Andrea: Sure.

Therapist: And how does that go?

Andrea: Well, sometimes it works, but I guess if it worked really great, I wouldn't be here, right?

Therapist: Right. So for this little inquiry, tell me about when it has not worked so we can explore a bit of unworkability.

Andrea: Well, I come home planning to not drink, but later I drink anyway.

Therapist: And let's slow down and get curious about the moment when you make the shift from not drinking to drinking. Tell me about that moment.

Andrea: Well, sometimes I just drink and don't even think about it until later. And sometimes I have sort of a fight with myself about drinking.

Therapist: And how is that fight? What is it like?

Andrea: It sucks. Sometimes I feel like my chest is about to crack open because it gets so tight.

Therapist: And when you shift and take that first drink?

Andrea: Well, at least I can breathe. I feel it wash all warm down my throat, and I can breathe.

Therapist: Anything else?

Andrea: Well, it doesn't make any sense, but I get this feeling like *Tomorrow I am going to cut drinking loose forever and just move on with my life*.

Therapist: That sounds nice—really nice. I can almost feel my own breath fill me to the brim as you say it.

Andrea: Well, it doesn't last. I always end up stupid drunk. I just feel so weak and stupid.

Therapist: Well, hold on a minute. I want to check out a couple of things. Remember how I said that I would ask you to practice some things and to watch what happens both over the short term and over the long term? First let's look at this: Notice how over the short term, that drink feels great; but over the long term, it feels awful and it's getting worse.

Andrea: I know. I must be stupid. Over and over, even when I know better. That's the story of my life. I'm not like other people. I see them and think, *What is wrong with me?* I can't do the simplest thing. I can't talk to people—just talk to them! I just stand there like an idiot. I have always been like that. I can't do anything.

Therapist: Wow! I mean… Did you see what just happened? I just asked you about drinking over the short term and the long term, and… *(Therapist gets quiet.)* It was like this wave of hurt and judgment washed over our conversation.

Andrea: I'm sorry. I shouldn't have said anything.

Therapist: No, that really helps me actually. Are those the kinds of things you are thinking as you sit alone in your apartment?

Andrea: That's it. Over and over and over.

Therapist: Wow. And when you drink, you get a little easing of that.

Andrea: But it doesn't last.

Therapist: Okay, this is really going to help me explain the therapy. Perfect, really. There is something that got lost in all that sense of doom that washed over our conversation that I want to touch on. Let's look at those moments after that first drink, when you get that sense of peace, of something being possible.

Andrea: But it's a lie.

Therapist: I get that there is a piece of it that always seems to go wrong, but let's check and see if there is something else there too.

Andrea: What? What else?

Therapist: I want to check out that moment of peace and possibility. What if in that moment is a glimpse of what I was talking about earlier—a life lived with freedom and richness and meaning, a life where you could choose.

Andrea: But it's a lie.

Therapist: Well, it has not happened. I get that. But in a world where that was possible—a life lived with richness, freedom, and purpose—what would such a life mean to you? What would be the shape of that life?

Andrea: I just don't know.

Therapist: If our work was about making a place where possibilities could be kindled, would that work be worth doing? That is the work I want to do with you. What if there were practices we could do here and that you could do at home and

at work that could open up that sense of possibility and purpose without your taking a drink?

Andrea: Well… But, how?

Therapist: This is a little like swimming, Andrea. I can tell you some, but I could talk all day and you would not know what it is like to get in the water. But to tell you a bit, if you decide to come along, we will make six practices the center of our work together. The first practice involves learning to come to stillness, to notice the richness and complexity of each moment. The second practice will involve learning to shift perspectives on things—on the world and on ourselves, past, present, and future. The third practice will be the practice of acceptance. It will be up to you, always, but we will practice noticing the difference between pain that moves us toward well-being and pain that is destructive, and we will also practice opening up to pain that is in the service of living. The fourth practice will be letting go of unhelpful stories. This is not about true and false stories. It is about helpful and unhelpful. This brings us to the fifth practice. If the stories are not in charge, then what is? The fifth practice will be the practice of authoring a valued sense of direction. It is perfectly fine for this to be fuzzy at first. We will simply begin that process and allow it to develop over time. The sixth and last practice is where, in the smallest and simplest ways, we put our lives in motion in a direction that we could love.

Assessment in Motion

In an important sense, every ACT session is an assessment. This opening session contains many of the elements we will continually assess and treat over the course of therapy. In what follows, we examine the ways that treatment can address these behavioral excesses and deficits by building practices to support growth and development in the treatment of clients with substance use problems.

Structured Exercises to Promote Psychological Flexibility

There are a number of ACT protocols specific to addiction available on the website of the Association for Contextual Behavioral Science (ACBS; www.contextualpsychology.org), and numerous general protocols in the form of books. All of these can provide structure and guidance in the use of ACT in treating addictions. The following set of exercises, Practicing Our Way to Stillness (POWS) have been excerpted with minor adaptations from *The Wisdom to Know the Difference: An Acceptance and Commitment Therapy Guide to Recovery from Substance Abuse* (Wilson & DuFrene, 2012). The exercises and inventories can be spread across treatment as the client is prepared to engage them. They provide opportunities to practice all six ACT processes. After presenting the four parts of the POWS exercise, we will discuss cultivation of the six core ACT processes fundamental to psychological flexibility.

Practicing Our Way to Stillness—Part 1

In this inventory, you'll be asked to notice places in your life where you have been absent or perhaps less present in some way. See if you can let go of self-condemnation for now. There will be plenty of time for that if you decide you need to give yourself a beating. For now, let this be more like an exercise in noticing.

Below you'll find a list of twelve aspects of life. Some may be important to you, and some may not. These are areas of living that some people care about. Let your eyes come to rest on each one:

- *Family (other than your spouse or partner and your children)*
- *Marriage and intimate relationships*
- *Parenting*
- *Friends and social life*

- *Work*
- *Education and learning*
- *Recreation and fun*
- *Spirituality*
- *Community life*
- *Physical self-care, exercise, sleep, and nutrition*
- *The environment and nature*
- *Art, music, literature, and beauty*

You'll be invited to reflect on some of these areas. You can eventually reflect on all twelve, if you like, but start with only three or four that resonate with you the most.

Let yourself become aware of the first area you choose to reflect on. Slowly and gently, allow yourself to become aware of ways you've been absent, of times when you could have been present to this area of your life and just weren't. Don't judge or evaluate. Just notice.

You may not be able to think of any examples of not showing up that relate to a particular area. That's fine. This is an inventory. There are no right or wrong answers, and the exercise isn't about doing anything. It is about learning how to notice and gently shift your attention and, ultimately, about learning how to be still. See if you can bring your gentlest self to the task.

When you're ready, move on to the next area. Slowly and gently, once again allow yourself to become aware of ways you've been absent, of times when you could have been present to this area of your life and just weren't. Take your time. Slow down. Breathe. There is nothing to accomplish here, nothing to be done other than notice. Whatever happens, breathe through it and let yourself come to rest.

Practicing Our Way to Stillness—Part 2

As we continue, remember that this isn't an exercise in what's wrong with you, although those kinds of thoughts may well be called up. Just allow yourself to show up for those thoughts, even if they are very hard to bear. Remember that our purpose here is to help you practice coming to stillness when hard things are in front of you. This is about learning to notice any tendencies you have to hide, run, or fight when things get ugly.

Hiding may show up as I don't need to do this. *Running may show up as* I'll do this later. *Fighting may show up as* Why do I need to do this? You can't make me do this! *That's all true. You don't need to do this work at all, and you can certainly put this work off until later. No one can make you do anything. But if you can learn to slow down and to pause in the face of hard things, you will be better practiced at pausing later, when we talk about choosing a path.*

To continue this inventory, I want you to go back over the areas that you reflected upon in the first part of this exercise. Ponder each of these three questions in relation to that area of your life:

- *What does this area mean to you?*
- *What would you hope for it to mean?*
- *In a world where you could take time, in a world where you could offer yourself a gift in this area, what gift might you offer?*

The last question is especially important. If you're willing to give yourself one small gift in an area of your life that matters to you, you start down a path that holds the possibility of leading to a richer, more fulfilling life.

Practicing Our Way to Stillness—Part 3

In a notebook, set up a separate page for each of the following substances that you've used:

- *Alcohol*
- *Marijuana*
- *Hallucinogens (LSD, mushrooms, peyote, and so forth)*
- *Depressants (Xanax, valium, barbiturates, and so forth)*
- *Stimulants (speed, cocaine, ecstasy, ephedrine, and so forth)*
- *Inhalants (glue, gasoline, aerosol propellants, and so forth)*
- *Opiates (heroin, Vicodin, codeine, OxyContin, Percodan, and so forth)*

For each substance, write down the following information:

- *The age you started using*
- *How long you used*
- *The frequency of use (in times per week, month, or whatnot)*
- *How you used the substance (smoked, drank, ate, injected, and so forth)*

Begin with the first time you remember using any mood-altering substance, no matter how little the amount. It is important that you be painstakingly thorough in this task. You can use a format like the one in the sample below, or just write a description of your age and usage.

Example: Stimulants

Age	Quantity and frequency	How used
12 to 15 years	*amphetamines 2-3 tablets, 6-8 times per year*	*oral*
16 years	*a few lines of cocaine, about 4 times that year*	*snorted*
17 years	*about 1/4 gram of cocaine, about 3-6 times per week*	*snorted, some smoked*

Practicing Our Way to Stillness—Part 4

After you've made a thorough inventory of your past use of substances, write down any problems or changes in your life that were associated with using alcohol or drugs in each of the twelve areas listed in the first part of this exercise. In some ways, this is a harder review than what you did in part 1 of this exercise. In part 1, you were just looking for general ways you might have been less than fully present. For many people, drugs and alcohol are an important way to check out. If that's true for you, there are likely to have been consequences. Those consequences are what you're going to reflect on in this final part of the exercise.

If there were no consequences, write, "None." However, I encourage you to list any consequences, even if they were small. For example, you may not have been fired from a job, but you may have gone to work with a hangover and been less effective as a result. Number each section and keep the twelve areas separate from each other as much as possible. It is absolutely okay to be repetitive, writing the same consequence in several different areas. Pay special attention to times when, as a result of drinking or using (or seeking alcohol or drugs), you did things that violate your personal values (concealing, rationalizing, being secretive, being violent, and so on). Give a few very specific examples in each section.

Present-Moment Processes and Practices

As suggested to the client in the opening session, an intervention may begin by assessing and building present-moment practices and processes. This can be done via relatively formal mindfulness practices, but it can also be done moment-by-moment in therapy. When helping clients build skills in present-moment processes, it's important to acknowledge related processes that pull us out of the present moment.

Interventions to build more flexible present-moment repertoires involve training for fluid transitioning to and from engagement with past, present, and future. They also involve breaking up fused storytelling to build sensitivity to the richness of experience in the moment. In the dialogue above, take note of the inflexible, fused quality in Andrea's description of her social interactions: "I must be stupid. Over and over, even when I know better. That's the story of my life… I can't do the simplest thing. I can't talk to people—just talk to them! I have always been like that. I can't do anything." This sort of fused narrative is likely to recur in and out of therapy.

Rather than engage the client in evidence gathering or refutation, use the reemergence of this theme in therapy as an ideal moment to notice the familiarity and repetitiveness of the story and then drop into a brief, simple present-moment practice such as Six Breaths on Purpose (Wilson & DuFrene, 2012). In Andrea's case, if the same pattern reemerged in a discussion of the POWS inventory, the following dialogue might occur:

Therapist: Andrea, I want to interrupt you for just a moment. I want you to notice this story of self-judgment that has washed over you. Take just a moment and notice the quality of what you are saying—as if you are trying to convince me. Can you notice a sort of urgency in your speech? Stop for a moment and notice whether you feel it in your body.

Andrea: What? I wasn't thinking about how my body felt at all. I don't know.

Therapist: This would be a good time to practice reconnecting with the present moment. We don't need to make that story go away, but let's try taking six breaths on purpose and see what happens. Here's how it works: Our breath enters and

> leaves all the time, but we seldom notice it. So what we are going to do right now is just come to rest and take six breaths slowly and deliberately, noticing all of the small sensory details of the rise and fall of the breath.

The therapist would then ask Andrea to close her eyes, settle into her chair, and take a moment to notice the physical details of the rise and fall of the breath—the stretch of muscles as the belly and chest rise, the warmth of the exhalation, and the coolness of the inhalation. After giving that direction, the therapist counts out six breaths and then asks Andrea to allow her eyes to open. After clients have done this practice a few times, little coaching is needed beyond the suggestion to stop and take six breaths together on purpose.

This is a practice clients can carry with them into virtually any area of daily living. It is brief enough to do in line at the grocery store, sitting in the office, or lying in bed in the evening. The exercise is not aimed at eliminating troubling thoughts, though it often has the effect of softening their hold. The purpose is to practice fluid transitions to flexible, focused attention.

It is useful to practice present-moment processes using varied content, including benign, challenging, and sweet. This is more likely to generate breadth, flexibility, and generalizability in the practice. Practicing only in the context of troubling thoughts may result in present-moment processes being used as an avoidance strategy, whereas the practice we want to cultivate involves the ability to fluidly allocate attention in a wide variety of circumstances.

Self Processes

Within the area of self processes, intervention efforts are aimed at diluting fixed, conceptualized views of the self, improving ongoing self-awareness, and building perspective-taking skills. When individuals are fused with stories containing categorical assessments, laden with evaluations and comparisons, they are encouraged to loosen the hold of such stories by engaging in defusion exercises. The POWS inventories described above provide many opportunities for transitioning to different perspectives and letting go of rigid, negative self-evaluation as an exclusive perspective. Each inventory, when undertaken without flinching

from careful examination of mistakes or losses, invites the adoption of a compassionate and mindful perspective.

In practice, clients are reminded to use descriptive, nonevaluative statements while focusing on moment-to-moment experience (self-as-process). Once the self is encountered as more of a stream of ongoing experiences, clients can practice taking the perspective of the observer self (self-as-context). Exercises such as Leaves on a Stream (Hayes et al., 2011) ask clients to close their eyes and picture their thoughts moving past them on leaves floating down a stream. Such exercises serve to increase skills in adopting a perspective consistent with self-as-context and the ability to see thoughts as an ongoing flow moving through an awareness that has constancy.

Other exercises might involve actively shifting perspective. Once the therapist and client have settled into an alert, mindful state, the therapist may engage the client in the following way:

Therapist: What thoughts are coming up for you now?

Andrea: When I was writing about family, I found myself thinking they would be better off without me. I deserve to be alone so I don't hurt people anymore.

Therapist: If you let your eyes close for a moment, I wonder if you can allow yourself to travel back through time and see if you can see your own face at different times when you felt this strong sense that there was something wrong with you, that your family and others would be better off without you. How young were you when you first had that sense?

Andrea: Forever. I have always felt wrong—just not like other people.

Therapist: Do you remember feeling that as far back as six or seven years old?

Andrea: Yes, always.

Therapist: I ask that you call to mind the image of that younger you—that six- or seven-year-old you. Notice the way she holds her body, the way the hair falls around her face. Can you look into those eyes and see that sense of being off? Maybe it is something other people wouldn't see, but can

you see it? See if you can know something about that child's inner experience that others do not know. Take a moment and let your eyes linger on the child's face. *(Pauses.)* Imagine that you could reach out and gently lay your hand on that child's cheek—feeling the softness of that skin at your fingertips. Imagine that you could say to that child, "I know." Imagine that as that child looks into your eyes, she sees into the eyes of someone who knows her. Just stay with those eyes for a moment. *(Pauses.)*

And breathe. Bring your attention to bear on the gentle rise and fall of your chest as you inhale and exhale, here in this room with me. Notice any tension you may be holding in your shoulders, back, or legs. And breathe a sense of softness into these places.

Now I ask that you call to mind an image of yourself twenty years from now. Let it be an older, wiser version of you. Even if you cannot imagine how, let it be that, somehow, you found your way to an older and wiser place. Let yourself see it. Can you see the outline of her face? The same face that you wore as a little girl, that you wear now, still visible in those eyes. Those deep-brown eyes that have known pain and profound sadness… Imagine that she knows something you don't know now—something about how things will turn out for you. Imagine that she could reach out to you, laying her hand gently on your cheek. Imagine that she could whisper a message to you—a message from the future, something to carry you forward. *(Pauses.)* What message does she have for you? *(Pauses.)*

And, once again, become aware of the rise and fall of your breath. Allow those images to well up around you, without struggle. And breathe, deep and full.

The predominant focus of this visualization is taking multiple perspectives, though it also has significant acceptance and present-moment components. Taking the perspective of a younger self and an older and wiser self allows the same content to be viewed from different perspectives. Secondary but important aspects of the exercise involve practicing intentional mindful movement of awareness—from the visualizations

suggested in the exercise, to the rise and fall of the breath, back to the visualizations, and finishing with the breath.

Acceptance

The substance use components of the POWS (parts 3 and 4) are often a great place for people with substance use problems to practice acceptance. Working through the extent of a substance use history allows both client and therapist to look at patterns of use and any changes in patterns of use over time. For example, in Andrea's case, the therapist's review of part 3 of the POWS would show that Andrea increased her alcohol use about five years ago. The therapist might then ask questions about what was going on in her life at that point in time, noticing function and workability over the short term and long term.

In part 4 of the POWS, clients are asked to write descriptions of specific consequences of their substance use in valued domains such as work, self-care, and a variety of interpersonal domains. The purpose of this work is not to punish or to generate insight. The purpose is to use these often painful life experiences as opportunities to practice acceptance. The assumption is that life has, and will, contain many painful experiences, and that increased acceptance can allow for more effective living. The following dialogue between Andrea and the therapist illustrates Andrea's experiential avoidance and an initial introduction of acceptance as an alternative.

Therapist: So in the area of family, you wrote that you drifted apart from your siblings. Tell me more about that.

Andrea: For the past few years, if I wasn't at work I was home drinking. I didn't feel like talking to anyone, so I didn't. I drank instead. If you don't talk to people, you drift apart.

Therapist: Tell me about one particular instance where you chose to drink instead of calling one of your siblings. Tell me about it in as much detail as you can.

Andrea: I didn't call my brother on his birthday. I knew it was his birthday. It had probably been a month since I'd last talked

with him. It was a particularly dark day for me—one of those days when saying just one word hurts. I thought about calling him, and then I thought about how absent I've been, which made me feel worse. I just kept drinking instead of calling him.

Therapist: What thoughts were you having?

Andrea: That I am a horrible person, so uncaring and selfish. That I don't deserve them, and it would be better for everyone if I never left my apartment and didn't talk to anyone.

Therapist: Yes. And what kind of feelings are you having at this moment?

Andrea: I feel guilty and ashamed. I feel anger at myself for ruining my relationships with them, and sadness because I really miss them. This feels terrible.

Therapist: What do you do when these types of thoughts and feelings come up?

Andrea: I shut myself away in my apartment and drink.

Therapist: And how has that been working?

Andrea: Not well.

Therapist: What if the way out of the struggle is stepping out of the fight with your thoughts and feelings? If trying to avoid them or reduce them hasn't worked, what if the job is to notice the negative thoughts and feelings when they come up, acknowledge them, and then return to activities that are important in your life, like calling your brother?

Clients often engage in other unworkable behaviors, in addition to substance use, in an effort to avoid aspects of their experience. Coming into contact with the unworkability of previous strategies makes way for a new approach. It is important to speak of acceptance as an ongoing practice, rather than an all-or-nothing matter. Part of the practice involves letting go of avoidance, and part of it involves becoming curious about what might be possible in the absence of that struggle.

Defusion

The purpose of engaging in defusion exercises is to loosen the functional hold of stories on behaviors when those stories prevent movement in valued directions. Stories about self, touched on in the section on self processes above, are a subset of fusion. Verbal formulations of how the world works can also sometimes function as a sort of verbal prison. Beck's central insight was that people do not simply live in the world; they live in a version of the world built on stories (Beck, Rush, Shaw, & Emery, 1979), including stories about themselves. ACT is beholden to Beck for pressing this issue to the forefront of the CBT movement. However, ACT differs from cognitive therapy in that the primary response to unhelpful thoughts is not to attempt to replace them with more accurate thoughts. Instead, ACT interventions aim at loosening the grip these stories have on living effectively. Many stories about the wreckage created in the midst of substance abuse will be true, and stories about the likelihood of wreckage in the future may be highly probable. Yet sometimes very unlikely things happen. Holding stories lightly is a practice that allows change regardless of whether the stories change. We see this dynamic reflected in the findings of Luoma and colleagues (2012) described above. Even though participants in the ACT condition had higher shame scores at post-treatment, they drank less and used more aftercare treatment resources than those in the control condition. At follow-up their shame scores had continued to drop. Thus, loosening the grip of stories appears to be both teachable and useful.

Clinicians should listen for words like "should," "shouldn't," "always," "never," "possible," "impossible," "right," "wrong," "fair," "unfair," "but," "everyone," and "no one," as these are common indicators of fusion (Wilson, 2009). Defusion exercises involve practice discriminating between thoughts and direct moment-by-moment experience (Hayes et al., 2011). The goal is to create space between individuals and the thoughts they are experiencing, enabling direct contact with environmental contingencies, and even the thoughts themselves, in a more flexible and articulated way.

Many defusion exercises involve practicing mindful observation of thoughts and noticing when awareness is hooked by them. In some regards, acceptance, present-moment, and self process interventions almost always contain an element of defusion. They involve taking a

nonjudgmental stance toward cognitive processes and engaging in statements that are descriptive, rather than evaluative. Many exercises have been developed to promote the cultivation of defusion. One involves labeling thoughts as thoughts (e.g., *I'm having the thought that I'm a hopeless case*; Hayes et al., 2011, p. 266). In another, distressing words can be repeated until the strong functional hold of the word fades (Titchener's repetition; Titchener, 1916; see also Hayes et al., 2011, p. 248). A variety of defusion exercises found in ACT treatment manuals can be adapted to troubling thoughts related to substances and substance use.

Values

Walking away from substances is difficult. Withdrawal symptoms are uncomfortable and often painful. Some individuals who give up substances are also giving up the only peace they know. In ACT, values are emphasized from the beginning. In fact, the original ACT values protocols were generated in the context of a treatment development grant for polysubstance abusers. Values serve as a compass, indicating the direction in which the client wishes to travel, and therefore serving as a guide in treatment. In ACT for substance use problems, treatment is not just about getting sober; it is about creating a full, rich, meaningful life. Part 4 of the POWS asks clients to come into contact with areas in their lives that they care about and with how using substances has affected those areas. Sometimes behavior while using substances results in the loss of things that matter to the individual. In Andrea's case, in the process of hiding away and drinking alone in her apartment, she neglected her relationship with family members and missed opportunities to have meaningful experiences with them. Andrea's behavior also made the development of friendships difficult.

Sometimes the losses identified in part 4 of the POWS are the result of inappropriate behavior while using (e.g., showing up at work drunk, getting a DUI, hitting a loved one), and sometimes the losses are the result of a reduction in engagement in activities related to valued areas, as in Andrea's case. Part 4 of the POWS can help people see ways their behavior harms the very things and people they care about. In the following example, the therapist reviews this material with Andrea and uses it as a guide for further conversation:

Therapist: I see that you didn't write down any consequences related to physical or health problems that are related to drinking.

Andrea: That's correct. My drinking hasn't caused any physical damage to my body.

Therapist: Okay. Direct physical consequences of alcohol are only one kind of damage that can happen. Have you treated your body the way you would treat the body of someone you really love?

Andrea: No. Probably not.

Therapist: Tell me a little more about that.

Andrea: I haven't really given my body much thought at all. I don't think about what I put in my body. I don't exercise.

Therapist: Is this something you would like to do? Take better care of yourself physically?

Andrea: I haven't really thought about it. I don't think it's possible. I've tried to eat better and exercise before, but it never lasts.

Therapist: I didn't ask whether it was possible or how it has worked out in the past. Imagine a world where it was possible. In that world, would you choose to take better care of your body?

Andrea: Yes.

The point of coming into contact with the consequences of drinking is not to condemn past actions or lead clients to ruminate about them. The purpose is to examine how using substances takes them away from the things and people that matter to them and to illuminate a path forward. During treatment, clients are encouraged to act in service of their values despite negative thoughts and feelings. Helping clients get in contact with what they value and how to act in service of those values are important aspects of treatment.

Another way to explore and expand on values is through the use of instruments like the Valued Living Questionnaire – 2 (VLQ-2; Wilson, 2009; also available at www.actforaddiction.com). The questionnaire provides a systematic format for the client and therapist to examine the

twelve valued domains listed in part 1 of the POWS and to explore the client's sense of importance, concerns, and sense of possibility across those domains of living. Patterns of growth cultivated in the resulting clinical conversations can then be used to cultivate the final psychological flexibility process: committed action.

Committed Action

Clients often want to know if, once abstinent, they will ever drink or use again. The simple fact is, we don't know. The only way to answer that question with certainty is to drink. Each moment is a choice to drink or not drink. That is all there is, a commitment in this moment. If a person who chose abstinence relapses, committed action involves the gentle return back to not drinking. Committed action in other life areas works the same way.

Clients with substance abuse problems are often trying to rebuild their lives, and the wreckage of their past may seem massive and impossible to overcome. The key is to ask them to start small. Initial committed actions could be something as simple as making a phone call to a sibling, going to an AA meeting, going for a walk, or filling out one job application. This work is about slow and steady movements toward values:

Therapist: Tell me a value you hold.

Andrea: I value having an engaged relationship with my siblings.

Therapist: Okay. Let your eyes gently close. I'm going to ask you to imagine a few things and ponder a few questions. There is no need to answer these questions out loud. Begin by imagining a pantry with empty shelves. If you were going to stock your pantry with acts related to being the sister you want to be, what would those acts be? Think both big and small. It could be a phone call to your brother on your way home from work or sending your sister a card in the mail. It might be listening attentively during a conversation or making a surprise visit. What kind of acts could you fill your pantry shelves with? Remember, for now these are not

things you must do. Let some items be things you may never do but can leave open as possibilities—maybe you would retire to the same town or take a holiday together in Mexico. Be playful. Don't forget to think small too. See if you can think of a few things that you could do in a few minutes, like sending a text message.

After engaging clients in this sort of visualization, let them sit in stillness with their experience for a moment. Then ask them to open their eyes and use a form like the Valued Action Worksheet (available at www.actforaddiction.com). For your reference, we include the following abbreviated sample of that worksheet.

Valued Action Worksheet

Below, please describe who you want to be and what you want to do in regard to a value that's important to you. The focus of the question is on you and your role in these areas. Please write a short sentence describing the value, including a few qualities you'd like to have in that area. Then list various actions that you could take that would be consistent with that value. Try to come up with a variety of actions, large and small, including some very small, simple but meaningful acts. You don't have to list eight different actions, but give it a try.	
My value is: *Being a loving, available, and connected sister.*	
1. *Make a Facebook post once a week.*	5. *Send some recent pictures of myself.*
2. *Call once a week just to talk.*	6. *Answer the phone when they call me.*
3. *Call on birthdays.*	7. *Invite them to visit.*
4. *Fly to visit on spring break.*	8. *Talk about things I'm doing in my life.*

The activities generated in this exercise can form the core of a plan for values-consistent behavioral activation. Clients should be encouraged to proceed gently. The purpose is to create a steady process of building healthy patterns of living.

For some clients, domains such as family may be precisely where they are prepared to start. For others, direct work on certain areas of living will need to be delayed. For example, parents separated from their children by court order may need to demonstrate a period of stability in residence and employment. Also, some clients may not be prepared to immediately take on development in certain areas. For example, in Andrea's case it might make sense to devote time to cultivating less challenging social relationships before plunging into intimate relations. For some clients, a commitment to attend regular 12-step meetings or to engage in some form of physical exercise might be an appropriate starting point. The critical feature of this work is that sustainable life engagement is good medicine. We believe this to be consistent with findings in behavioral activation and with data demonstrating that psychosocial dysfunction predicts increased depressive symptoms (Vittengl, Clark, & Jarrett, 2009). As suggested by the ACT model and by ongoing work in motivational interviewing, the best behavioral targets are the ones that clients themselves endorse.

Integration into Current Treatment Settings

In considering the integration of ACT into current treatment settings, two central considerations emerge: structural elements of treatment, and procedural, theoretical, and philosophical compatibilities. As to structural elements, ACT appears quite flexible in implementation. It has been successfully delivered in inpatient treatment (e.g., Bach & Hayes, 2002), outpatient treatment (e.g., Batten & Hayes, 2005), and residential treatment (e.g., Luoma et al., 2012). ACT has been used in individual therapy (e.g., Twohig, Shoenberger, & Hayes, 2007), group therapy (e.g., Kocovski, Fleming, & Rector, 2009), and mixed individual and group therapy (Gifford et al., 2004; Hayes et al., 2004). It has been executed in medical settings (e.g., Branstetter-Rost, Cushing, & Douleh, 2009; Wicksell, Melin, & Olsson, 2007), as bibliotherapy (Muto, Hayes, & Jeffcoat, 2011), and as a single-day workshop (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007; Lillis, Hayes, & Levin, 2011). Duration and intensity of treatment have likewise been quite varied. For example, the trial with

polysubstance-abusing methadone clients by Hayes and colleagues (2004) involved sixteen weeks, with participants assigned to receive two individual and one group session per week. In others, such as Bach and Hayes (2002), clients received just three one-hour sessions of ACT. Although the variability in intervention structure specifically for substance abuse is necessarily smaller than in the broader ACT treatment development effort, this demonstrated breadth of effective protocols suggests that the treatment can accommodate many real-world circumstances.

ACT has some unique theoretical and philosophical assumptions (Hayes et al., 2011). However, at a more practical level, ACT and ACT components have been successfully blended with a relatively wide variety of treatments with promising results. For example, ACT has been combined with elements of dialectical behavior therapy (Gratz & Gunderson, 2006) and functional analytic psychotherapy (Gifford et al., 2011). Substantial ACT components are mixed with more traditional CBT components in acceptance-based behavior therapy for generalized anxiety disorder (Orsillo, Roemer, & Holowka, 2005). ACT values components can be found in some variants of behavioral activation (Lejuez, Hopko, & Hopko, 2001). ACT has been added as a component to a residential drug and alcohol treatment with significant 12-step components in two studies (Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008; Luoma et al., 2012; Peterson & Zettle, 2009). These latter data are particularly important for integration in the United States, where many programs continue to have a 12-step focus. ACT has long been argued to be compatible with many 12-step sensibilities (Wilson, Hayes, & Byrd, 2000; see also Wilson & DuFrene, 2012, for a book-length self-help treatment that integrates these approaches).

ACT is theoretically consistent with the motivational interviewing approach, commonly employed with clients experiencing ambiguity about changing substance-related behaviors (Miller & Rollnick, 2002). Like ACT, MI is a collaborative approach, fostering a partnership between therapist and client (See Bricker & Wyszynski, chapter 9 of this volume, for an in-depth discussion of similarities between ACT and MI). Another common approach, harm reduction, is compatible with ACT in many respects. Marlatt and Witkiewitz (2002) describe the harm reduction approach as based upon three core objectives: to reduce detrimental substance-related consequences, to provide a treatment alternative to abstinence-only approaches, and to lower the treatment threshold for

those unready or unwilling to cease all using. These three pragmatic harm reduction goals are entirely congruent with those of ACT.

Finally, ACT is closely related to and compatible with mindfulness-oriented interventions. Like ACT, mindfulness interventions have only recently begun to be studied empirically with regard to their application to substance use disorders (Bowen et al., 2009; Bowen, Chawla, & Marlatt, 2010). ACT's relationship to these interventions is twofold. First, from an ACT perspective, mindfulness is the convergence of four core processes: present-moment awareness, perspective taking, acceptance, and defusion (Hayes et al., 2011; Wilson, 2009). Because of this overlap, it would not be difficult to add substantial mindfulness training components to an ACT protocol. Likewise, the addition of ACT exercises that involve mindfulness could fit readily into a primarily mindfulness-based treatment. A second overlap between ACT and mindfulness-based treatments is the idea, widely held in both treatment development communities, that a personal practice on the part of the practitioner will allow the practitioner to deliver the treatment with sensitivity and integrity (see comments on this issue in Segal, Williams, & Teasdale, 2001).

Summary of Evidence: The State of the Research

Although the collective body of research pertaining to ACT and substance abuse is relatively new, it has received increased attention and is gaining momentum. In 2010, ACT was added to SAMHSA's National Registry of Evidence-Based Programs and Practices (Substance Abuse and Mental Health Services Administration, 2010). Generally, as an approach for smoking cessation, ACT has been shown to produce results comparable to those of CBT (Hernández-López, Luciano, Bricker, Roales-Nieto, & Montesinos, 2009) and results significantly better than those of nicotine replacement treatment (Gifford et al., 2004) or, when combined with bupropion, compared to the results of bupropion alone (Gifford et al., 2011). A pilot study found preliminary support for a treatment package combining ACT, nicotine replacement therapy, exposure, and relapse prevention to improve distress tolerance in early-lapse smokers (Brown et al., 2008). One recent study found preliminary support for a brief (five

sessions, ninety minutes total) ACT intervention for smoking cessation delivered via telephone (Bricker, Mann, Marek, Liu, & Peterson, 2010).

With regard to alcohol abuse, a study conducted by Petersen and Zettle (2009) demonstrated quicker releases for inpatients experiencing comorbid depression and substance abuse compared to treatment as usual (which was couched within a 12-step program). Additionally, a case study published in 2003 described improved quality of life and a consumption rate that dropped to nearly zero in a male client diagnosed with alcohol dependence (Heffner, Eifert, Parker, Hernandez, & Sperry, 2003).

A study conducted by Twohig and colleagues (2007) provided preliminary evidence for the effectiveness of ACT with individuals dependent on marijuana. In terms of severe drug abuse, there is evidence that ACT performs as well or better compared to other efficacious treatments, including 12-step facilitation, methadone maintenance, and CBT (Hayes et al., 2004; Smout et al., 2010). A case study published in 2009 produced positive immediate and long-term (one-year) outcomes in a client receiving methadone maintenance in combination with twenty-four weekly ACT sessions (Stotts, Masuda, & Wilson, 2009). In a recent study on methadone detoxification, nearly double the number of participants in ACT condition were successfully detoxified from methadone (37%) as compared to those in drug counseling (19%), with no increase in risk for opiate use (Stotts et al., in press). Further, beyond showing reductions in substance use, recent studies have demonstrated the efficacy of ACT interventions in reducing self-stigma and shame surrounding substance abuse (Luoma et al., 2008; Luoma et al., 2012).

Research Directions and the Way Forward

Although preliminary evidence is promising, the majority of the work lies ahead. Consistent with the contextual behavioral science model (Hayes et al., 2011), we recommend that the development effort proceed across multiple strategic fronts. First, we should continue to test variants of ACT protocols both as freestanding treatments and as added components within existing institutionalized treatment efforts. We should continue to experiment with different levels of treatment duration and

intensity in order to establish empirically optimal effective and intensive treatment protocols. In addition to the examination of efficacy, funding priorities ought to go to studies that sample theoretically relevant change processes over multiple time points. Contemporary CBT has focused too strongly on treatment outcomes and insufficiently on the necessity of various components and the processes of change through which they work. Because ACT suggests different mechanisms of change than have been common in mainstream traditional CBT, development of measures should be a priority. Behavioral and self-report measures assessing putative change processes will allow us to develop and teach efficient and effective treatment strategies. Also, in support of the increased process-focused research and treatment development agenda, we need to see experimental psychopathology that examines the impact of micro-interventions extracted from larger ACT protocols. Such studies can be done relatively quickly and inexpensively, and will provide steps that can set up later, far more expensive and burdensome dismantling studies. Finally, development of the model should continue to be executed in broad contexts, including applied contexts. Deep within the contextual behavioral science mode is the idea that the breadth of the treatment development effort and the involvement of a large and diverse treatment development community is the best way to ensure the creation of a broadly applicable, acceptable, and useful model.

The future will see how far these developments go, but in the meantime ACT and its underlying model are now at a place where they can begin to be deployed in treatment programs for addiction problems. The ACT approach seems to be flexible enough to work in a variety of settings, for a variety of problems, and with a variety of protocols. It can be combined with other elements commonly found in treatment facilities for substance use disorders. ACT is now part of the range of methods that should be considered for use by drug and alcohol counselors and other professionals who work with problems of addiction.

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