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One-Day Acceptance and Commitment Training Workshops in Medical Populations

Lilian Dindo, Ph.D.

Baylor College of Medicine, Menninger Department of Psychiatry and Behavioral Sciences, Houston, TX. Michael Debakey Veterans Administration Health Services Research and Development Center for Innovations in Quality, Effectiveness and Safety, Houston, TX

Abstract

Chronic medical illnesses often require a high level of self-management, which can be challenging, particularly over extended periods. The challenge is accentuated by comorbid depression or anxiety, which interfere with motivation and drive. Acceptance and Commitment Therapy is an empirically based behavioral intervention aimed at helping individuals develop greater *psychological flexibility* in the face of life's challenges. It provides a unified model of behavior change and has shown promise in treating depression and anxiety, as well as chronic medical conditions. Importantly, Acceptance and Commitment Therapy has been effectively implemented in various formats, including 1-day group workshops, well-suited for dissemination into medical settings. The purpose of this review is to provide an overview of studies of 1-day group workshops in medical populations and suggest future directions for further development of this promising area.

Chronic medical illnesses often require active participation in one's care, making significant changes to one's lifestyle (e.g., eating healthfully, exercising regularly, self-monitoring of blood glucose), and adhering to treatment recommendations that might be challenging, particularly over extended periods. These factors become even more difficult to meet with co-occurring depression or anxiety, which interfere with motivation and drive [1]. Ten to 20% of patients with chronic medical conditions also suffer from major depressive or anxiety disorders [2–4]. Notably, the causal relationship between medical and psychiatric conditions may well be bidirectional; and their comorbidity adversely impacts quality of life and prognosis and is associated with shortened life expectancy [5]. Furthermore, the way one copes with chronic illness and associated stress appears to also have important long-term effects [6]. Specifically, cognitive and behavioral avoidant coping strategies, such as

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Please address correspondence to Lilian Dindo, Ph.D. lilian.dindo@bcm.edu; phone: 713-440-4637, Psychiatry Research, 2002 Holcombe (152), Houston, TX, 77030.

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avoiding reminders related to the medical condition, using distraction techniques, mental disengagement, and denial [7], have all been associated with poorer psychological and health outcomes [8, 9]. Conversely, interventions thought to counter avoidance and encourage engagement in important activities improve health outcomes [10–12].

Over the past 25 years, a new direction in behavior therapy has emerged, seeking to counter avoidance with *mindfulness, acceptance, and behavioral-change strategies* [13]. Acceptance and Commitment Therapy (ACT) is one of these novel modalities [14]. It provides a unified model of behavior change, designed to foster greater *psychological flexibility* in the face of life's challenges. As a result, ACT goes beyond any one condition (i.e., transdiagnostic), serving to treat psychological difficulties ranging from psychosis to depression. Moreover, because the core psychological and behavioral factors targeted by ACT are also relevant to medical illnesses [15], ACT has further been successfully applied to addressing behavioral issues associated with such conditions as diabetes mellitus and chronic pain, among others [16]. Several meta-analyses have shown that ACT is effective for treating a wide variety of problems, with generally medium effect sizes compared with treatment as usual (TAU), but with large effect sizes compared with wait-list controls [17–19]. ACT also compares favorably with active interventions [20]. Preliminary findings from moderation analyses further suggest that ACT may be well-suited for individuals suffering from comorbid medical and psychiatric conditions [21]. It is possible that common mechanisms of change targeted in ACT work in parallel in treating individuals with a variety of psychological conditions and major stressors, including serious medical illness.

To foster greater psychological flexibility, ACT focuses on helping people pursue valued goals and directions, with painful emotions, troubling thoughts, and strong motivation to escape or avoid them. ACT promotes psychological flexibility by encouraging individuals to 1) remain flexibly and purposefully in the present moment by being mindful of thoughts, feelings, bodily sensations, and action potentials, including during distressing experiences; 2) enhance their perspective on thinking and feeling such that difficult thoughts and feelings do not automatically occasion avoidance behaviors; 3) identify their fundamental hopes, values, and goals (e.g., being there for one's family, leading a collaborative life, etc.); 4) cultivate the habit of committing to doing things in line with their identified hopes, values, and goals; and 5) willingly accept the unwanted feelings inevitably elicited by taking difficult actions, particularly those consistent with their hopes, values, and goals. ACT views each of these as psychological skills that can be enhanced in any domain of living. Thus, ACT has broad applicability, including for comorbid medical and psychiatric conditions and even subsyndromal concerns, with the primary goal of optimizing active engagement in one's own life. Thus, although symptom improvement is not the explicit goal of ACT, it often follows [18].

Brief ACT Workshops

ACT has been effectively implemented in many treatment-delivery formats, including 1-day group workshops [16]. This flexibility allows focus to be placed on how best to package and deliver an intervention to meet the needs of the patient population, to ensure treatment adherence, and also to increase chances of dissemination into clinical settings. Implementing

a 1-day ACT workshop in a primary care setting provides broad access and unitary comprehensive care for comorbid medical and psychiatric conditions [22]. Presenting the treatment as a “workshop” rather than “therapy” is also better suited for primary care settings, where patients often have different expectations from those explicitly seeking mental health care [23]. For example, patients in these settings often do not spontaneously report their distress, psychiatric symptoms, and functional impairment to their healthcare providers. This may be explained by a variety of reasons, including worry that the medical condition will not be addressed as seriously, concerns about stigma, or lack of recognition of the negative impact mental distress has on overall health, in general, and on chronic medical conditions in particular [24].

A 1-day workshop also ensures treatment adherence and completion, the lack of which is often the greatest obstacle to effective delivery of mental health services. In fact, a meta-analysis of 125 studies of outpatient psychotherapy found that 50% of patients terminate study participation prematurely, with nearly 40% dropping out after only the first or second visit [25, 26]. Finally, a 1-day workshop may be particularly useful for patients with barriers to accessing care, a significant challenge in the United States, where one fourth of the population live in rural areas [6]. In the last 10 years, several 1-day ACT studies have targeted patients with chronic medical conditions. An overview of some of these studies and the results follow.

Diabetes

The first 1-day ACT study enrolled patients with diabetes. A unique feature of diabetes is that its management is nearly completely carried out by the patients, rather than by healthcare professionals. Good self-management is related to lower hemoglobin A_{1C} (HbA_{1c}) levels and, consequently, decreased likelihood of developing diabetes-related complications. However, only a third of adults in the United States with type 2 diabetes achieve glucose levels in the appropriate range. This is largely attributable to psychological factors, such as stress and motivation problems, as well as other behavioral factors. In a 1-day workshop, Gregg and colleagues randomized 81 patients with type 2 diabetes to either 7 hours of diabetes education or 4 hours of education plus 3 hours of ACT [27]. Patients in the ACT group learned about how avoidance coping, particularly avoidance of negatively evaluated thoughts and feelings in diabetes (e.g., trying to forget that one has diabetes) may interfere with effective self-management. Patients were taught instead to “make room” for thoughts and feelings about having diabetes while living in a manner consistent with their values. Helping participants clarify their values was a key component of the intervention.

Three months after the intervention, patients who had received the combined intervention exhibited lower blood glucose levels, better diabetes self-care, and higher levels of diabetes-related acceptance. Notably, acceptance and improved self-care behaviors mediated the relationship between group assignment and blood glucose.

Migraine

Patients with migraine also have rates of depression significantly above those in the general population [28]. They also exhibit more avoidance behaviors than healthy controls.

Moreover, those with lower levels of acceptance report more pain-related interference and disengagement from activities [29, 30]. In a 1-day intervention by Dindo et al., 45 patients with comorbid depression and migraine were assigned to 5-hour ACT combined with a 1-hour Migraine Education workshop (ACT-ED; n=31) or to TAU (n=14) [31, 32]. The ACT-ED intervention did not focus directly on the noxious physical experiences of migraine (e.g., physical sensations of throbbing headache, nausea, etc.) but instead on the reactions to them, which include thoughts (e.g., this is awful, I can't bear this, not again), feelings (e.g., shame, worthlessness, hopelessness), and behaviors (e.g., avoidance of activities), which impact mental health and functioning. That is, patients were encouraged to identify their values and goals, provided with tools on how to (re)engage in meaningful life activities, and taught new ways to respond to thoughts and feelings related to pain (e.g., acceptance and mindfulness). At the 3-month follow up, participants in the ACT-ED condition exhibited significantly greater improvements in depressive symptoms, general functioning, and migraine-related disability. Furthermore, in contrast to the TAU group, participants assigned to the ACT-ED condition exhibited significant improvements in headache frequency, headache severity, medication use, and headache-related disability, as reported in daily headache diaries [33]. Importantly, qualitative feedback from a majority of the participants indicated that the initial appeal of the study was that it was presented as a "workshop" to improve quality of life, rather than as a "therapy", making it nonthreatening or stigmatizing. Furthermore, most admitted that they would not have presented to specialized mental health care. This supports the idea that a 1-day workshop format is favorably perceived by patients with comorbid medical and psychiatric conditions who otherwise would not seek mental health treatment.

Distress in Vascular Disease

Depression and anxiety are common in patients at risk for vascular disease and independently contribute to the onset of vascular events (i.e., stroke or heart attacks) and mortality [34]. In a 1-day intervention, Dindo et al. randomly assigned patients with cardiovascular risk factors (e.g., hypertension, dyslipidemia, diabetes, etc.) and clinically significant anxiety or depression to 1-day (6 hour) ACT plus Illness Management (ACT-IM; n= 26) or to TAU (TAU; n= 14) [35]. Participants receiving ACT were encouraged to think about their health as a means to other valued areas of life. For example, they were asked to think about how improving their health may contribute to a greater engagement with family or in meaningful work. The retention rate was excellent, with 100% of participants completing the 12-week follow-up visit and 98% completing the 24-week visit. At the 6-month follow-up, participants in the ACT-IM condition exhibited significantly greater improvements in depressive and anxiety symptoms. They also exhibited significant improvements in quality-of-life domains. Importantly, effects of the ACT-IM intervention on depression at 6 months were mediated by improvement in psychological flexibility. Most participants described the workshop as highly valuable, and most reported that they would not have spontaneously sought out help for their mental health struggles. Of note, the majority also suggested that a follow-up visit be implemented to reinforce gains or address challenges encountered.

Multiple Sclerosis

Multiple sclerosis (MS) is a chronic auto-immune demyelinating condition associated with a range of psychological and physical difficulties. Sheppard et al. examined the feasibility and effectiveness of a 1-day (5-hour) ACT workshop in 15 patients with MS [36]. In addition to receiving psycho-education about MS, the participants completed values clarification exercises, were encouraged to examine the costs of struggling with thoughts, emotions, and physical reactions to MS, and taught alternative ways to respond to these difficult experiences, including acceptance, mindfulness, and committed action. At the 3-month follow-up, significant improvements were found for depressive symptoms and quality of life. Importantly, although the experience of physical pain was unchanged, there was an improvement in the impact of pain on behavior. As noted by the authors, demonstrating improvements in quality of life and in life engagement are particularly significant for chronic illnesses that have no cure.

Weight Loss

In a study by Lillis et al., 84 patients who had completed at least 6 months of a weight-loss program were randomized to a 1-day ACT workshop or to a wait-list control group [37]. The ACT intervention, lasting 6 hours, focused on acceptance, defusion, and values with an emphasis on difficult thoughts and emotions associated with being obese. At the 3-month follow-up, patients who completed the ACT workshop exhibited improved psychological functioning and quality of life, as well as reduced weight and weight-related stigma. These effects were mediated by change in weight-related psychological flexibility.

Discussion

In summary, 1-day ACT interventions in medical populations show promise in helping patients cope with physical symptoms, reduce distress, improve health behaviors, and optimize functioning. However, this area of research is still relatively young and needs further development. For example, methodological rigor of the studies could be improved by increasing sample sizes, ensuring randomization, comparing ACT to other active treatments, and blinding of outcome assessments. Future studies should also employ outcome measures more in accordance with the primary goals of ACT, such as values-based functioning. Commonly used measures of functioning, such as the SF-36 and the WHO-DAS do not necessarily capture the types of values-based changes that are targeted in ACT interventions; as a result, they may not be as sensitive to ACT treatment changes. The Chronic Pain Values Inventory [38] is one example of a measure developed to assess values-based functioning specifically in patients with chronic pain and there is data showing that this measure explains improvements in functioning above other more established measures [39]. Jointly administering ACT-based measures as well as more commonly used measures by mental health and medical professionals may provide information about how the different treatments work and whether ACT-consistent measures offer incremental information. Also needed in this area are outcome measures that are useful across diagnoses, such as measures of overarching distress and measures of functioning that capture the importance of values-based living. The Valued Living Questionnaire [40] and the Values Bullseye [41], which can be used in any population, are promising but need further research support. Administering

transdiagnostic measures would also be in line with the conceptualization highlighted by the Research Domain Criteria [42].

Future studies should also examine not only whether treatments work, but also how they work and whether they work through the proposed mechanism. Understanding the specific mechanisms or processes mediating clinical improvement in functioning allows intervention optimization by refining and emphasizing components responsible for change and eliminating nonactive ingredients. While mechanism research is important, however, it is difficult to execute without proper tools. Several studies reviewed examined the role of Psychological Flexibility as a mediator. This important step can be further extended by testing for other possible mediators of change. For example, the AAQ is often used as a measure of psychological flexibility, but this measure alone may not be measuring all relevant ACT processes such as self-as-context and committed action. Thus, in order to fully assess and track the 6 ACT processes, several measures may be used. New measurement tools, including behavioral measures, are needed to further understand what may be mediating improvements.

Examining mediators of change in a 1-day intervention will also vary from that of weekly treatments. Although participants may feel vitalized at the end of the 1-day intervention, one would not expect there to be significant changes in outcomes of interest immediately following the workshop. Researchers may assess early changes in the theorized mediator(s) soon after the intervention (1–4 weeks) and then examine how those changes may be associated with outcomes at 3- or 6-months follow-up. For example, by the end of the 1-day ACT intervention, participants may be asked to commit to one or two specific values-based behaviors in the following weeks. Researchers may then evaluate whether follow-through (or not) on those commitments were in turn associated with improved quality of life at a later time point.

Future studies could also include a dismantling design of the 1-day ACT intervention. To date, no studies have examined whether the entire treatment package is needed to enhance Psychological Flexibility, whether the separate components of acceptance and change are sufficient, or whether there is an interaction effect. In fact, the “active” components of an intervention may vary between different medical conditions. For example, focusing on the acceptance/mindfulness processes of ACT may be particularly valuable in conditions that have unavoidable pain such as migraine or multiple sclerosis. In contrast, emphasizing committed action and values-based behavior may be more relevant for medical conditions that require significant self-management such as diabetes and cardiovascular disease. In addition to determining which components of the treatment are necessary, it will also be important to determine whether a 1-day workshop is sufficient or whether booster sessions may be needed to sustain long term gains. The need for, the form (e.g., in person versus technology based), and the timing of booster sessions may vary across different medical populations.

In summary, one-day group workshops in medical settings are more feasible, less stigmatizing, and more cost effective, than weekly treatments. Implementing a transdiagnostic model of treatment such as ACT can provide relief for multiple life

difficulties, rather than just a particular disorder or problem. Elucidating the necessary and sufficient components of the treatment, through mechanism research and dismantling designs, holds the promise of moving the field from problem-specific empirically supported treatment protocols to principles-based approach to psychotherapy [43].

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Highlights

- Chronic medical illnesses are often accompanied with distress and require a high level of self-management.
- Acceptance and Commitment Therapy provides a unified model of behavior change for multi-problem patients.
- Acceptance and Commitment Therapy has been implemented in various formats, including 1-day group workshops.
- One-day workshops are well-suited for dissemination into medical settings.
- Studies of 1-day workshops in medical populations are promising but more research remains necessary.