

Acceptance and Commitment Therapy: What Is It and will Osteoarthritis Pain Sufferers Benefit?

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Introduction

Acceptance and Commitment Therapy, also known as ACT, is a relatively new form of psychological therapy. Designed to be helpful to people suffering from challenging health conditions that are not reversible and that may be highly disabling, ACT may be helpful to both patients and clinicians seeking to ameliorate chronic pain attributable to osteoarthritis, a prevalent progressive disease of one or more joints, commonly affecting older adults [1-3]. The idea behind ACT, is that in this form of behavioral related therapy, individuals will be more successful in coping with their life situations if they accept these, and see these as being beyond their control, and try instead to focus on those actions available to them and that could enhance and improve their lives. The goal of the ACT progenitors was to systematically develop an array of recommended cognitive strategies predicted to assist people in achieving a high life quality in the face of irreversible or chronic health or life problems [4], such as those encountered when experiencing unremitting pain.

According to ACT, people with chronic health conditions, especially those associated with pain [5], may suffer unduly due to their excessive focus on this experience, regardless of whether the pain is physical or emotionally oriented or both. Conversely, countering this perpetual focus of attention could help in efforts to maximize their potential for a high rather than a low life quality. It may also help to minimize the impact of personal suffering, as well attempts to simply avoid dealing with any personally threatening situations.

Background

Created by Steve Hayes in 1986, considerable current research support exists in favor of this psychological approach as a viable form of behavioral or cognitive behavioral therapy for many different health or aversive life conditions. Another pioneer in this area, Kirk Strosahl, has specifically achieved recognition in the context of his applications of ACT in the form of brief interventions that have yielded highly effective outcomes [6]. The approach, involves acceptance of a challenging situation, that cannot readily be remediated, as well as a commitment on the part of the client towards changing their focus on negative issues, by having clients adopt a flexible approach to altering any potentially unhelpful preexisting sets of psychological beliefs, thoughts and actions. Since 1996, more than 20 studies supporting the benefits of ACT in clinical trials have been published, and 634 total reports are currently available in Academic Search Complete data base. However, given that there is currently only one preclinical report linking ACT to osteoarthritis rehabilitation, this commentary was designed as a gate way to introduce the reader this topic and aimed to highlight the concept of ACT and its potential for heightening life quality in the case of individuals with osteoarthritis, who commonly suffer from chronic unrelenting disabling pain states.

The ACT Process

The acronym ACT that describes the therapeutic process that is commonly followed in this form of cognitive behavioral therapy can be understood as follows; that is, the A stands for 'acceptance of life's hardships'; the C stands for 'choosing to behave in ways that are

aligned with one's motivating values'; and the T stands for 'taking action to accomplish one's goals in the face of unpleasant emotions or psychological associations' [7].

In line with the ACT steps denoted above, counselors and others who apply ACT to help their clients deal with challenging life issues, frequently try to help the individual to accept, rather than ignore the situation, and also to reframe their beliefs rather than negating their thoughts. They frequently focus on therapies that can specifically help individuals to develop skills to deal with painful thoughts and feelings. They also focus on issues of value to them, or try to help them identify these values, so they can be used as a target for positive goal setting that can be directed towards changing one's life for the better.

Found to be a promising empirically supported complementary approach in the treatment of chronic pain [8], even among adults in their later years of life [9], one feature of ACT that may account for its efficacy is the use of a related approach to increasing one's ability to cope with challenging situations, called mindfulness [10], which involves being aware, focused, and open.

A mental approach believed to permit more positive affirmative actions and behaviors to be carried out than denial, or inattention to one's painful challenges, this desirable state of mindfulness can be achieved in different ways, for example through meditation. Another is by taking a step-by-step approach to trying to let go of painful beliefs or thoughts, to allow these feelings to exist without struggle, and to focus more on the present moment and its positive elements, and to be aware of all the stimuli and situation surrounding them.

ACT is thus a relatively novel cognitive behavioral approach with evidence for its effectiveness [11], and that focuses on trying to change one's negatively oriented thoughts in an effort to deal more effectively with one or more challenging or upsetting situations. It appears to be a relatively practical and cost effective approach that can be delivered in the form of ultra-brief therapy, or as a medium term, or long term therapy program, depending on the problem, and can target multiple psychological mechanisms concurrently [12]. It can be used independently or interactively by a client, patient, therapist, health coach, or health professional. It can also be tailored to suit the needs of the individual, or used to influence groups or organizations. In terms of chronic pain, which can be persistent and debilitating, Barban [5] noted the application of ACT yielded benefits among older adults as regards managing chronic pain, while Kratz., et al. [13] found pain acceptance was related to higher levels of physical activity among women with osteoarthritis, as did Cho., et al. [14] among 30 chronic pain patients. Moreover, pain acceptance moderated the relationship between pain and negative effect in the cohort, which suggested pain patients with greater capacities to accept pain may be better off as far as managing their condition [5].

Vowles., et al. [15] who conducted a comprehensive examination of the model underpinning ACT for chronic pain found moderate correlations among the ACT processes themselves, as well as significant relations with pain intensity, emotional distress, and disability. Mun., et al. [16] noted high pain acceptance significantly attenuates pain's capacity to disrupt work goal pursuits among adults with chronic pain. Mindfulness meditation, and the concentration of thoughts afforded by the practice of ACT also help to minimize reactive immune and autonomic functions that modulate mood, as is observed for practitioners of TaiChi mind-body exercise therapy who have chronic pain [17].

Consequently, by following the ACT way of thinking and doing, it is likely that chronic pain sufferers can improve their life quality – as well as their sense of vitality, emotional resiliency, well-being and fulfillment to a greater degree than those who do not follow these principles. This is borne out by an array of studies that show if ACT is practiced actively in everyday life it can be highly effective for treating highly challenging health conditions such as obsessive compulsive disorders, depression, anxiety disorders, substance abuse, post-traumatic stress syndrome, anorexia, terminal cancers, schizophrenia, eating disorders, and chronic pain [18]. Moreover, it has proved helpful in the management of diabetes, work related stress, and drug-dependence [6]. Reductions in experiential avoidance, increasing acceptance, heightened psychological flexibility, and contact with the present are other potential benefits of ACT [6]. Individuals who experience chronic pain and follow ACT principles may thus not only reduce their chronic pain levels, but may be able to do this without consuming addictive or debilitating medications.

Osteoarthritis Application

Osteoarthritis, a widespread highly disabling joint disease, is frequently accompanied by unrelenting episodes of intractable pain, pain catastrophizing, declining functional and work-related abilities, sleep problems, anxiety, depression, heightened pain sensitivity, fear of movement, and low self-efficacy and obesity [19]. Recommended self-management strategies to offset the associated psychological and physical consequences of osteoarthritis, include recommendations to remain active are frequently not followed due to the presence of persistent pain and pain beliefs that focus on personal incapacity in controlling pain and helplessness among other factors [20], such as outcome expectancy, self-efficacy, and depression [21,22]. This situation may further decrease the pain threshold, increase the sensitivity to non-noxious stimuli, and fear of moving that results in a more rapid disease progression than not.

Useful for ameliorating a variety of diseases with overlapping symptoms, Clarke, *et al.* [6] recently applied group acceptance commitment therapy to people with hip or knee osteoarthritis in a pilot randomized control. The important finding was that the ACT intervention was successful in reducing pain and sleep difficulties. As well, it is important to note, the approach, which awaits verification for its efficacy in a larger trial was found acceptable by the participants who undertook six ACT sessions. Of the 16 participants 64% completed more than 50% of the scheduled group sessions. Pain was specifically found to be significantly impacted by the intervention.

Additional work by Lee, *et al.* [23] implies that the application of mindfulness, may favorably alter the ability of 80 adults with knee osteoarthritis to cope with their pain. This group performed a secondary analysis of baseline data from a randomized controlled trial of cases with knee osteoarthritis, and found that mindfulness moderated the effect of pain on stress significantly.

Since osteoarthritis is also often exacerbated by fear avoidance versus active resolution strategies, sedentary behaviors, excess distress and anxiety, it is possible that acceptance and commitment therapy, a third-generation or modern form of the application of cognitive behavioral therapy, can be helpful for those with this health condition who are unresponsive or partially responsive to standard interventions. ACT may further enable this population to have a better life quality and functional capacity, in the absence of any effective medical cure for this disease. It may also help to increase exercise tolerance and improve sleep quality [24], thus enabling these individuals to both meet their needs, as well as deal with unanticipated stressors and disease fluctuations more readily.

Different from other more traditional forms of behavior therapy, ACT focuses on thoughts and whether they are true or not, rather than trying to reduce or deny them. It then stresses the person's own inner values and encourages behaviors that are supportive of these values to emerge. The principle of mindfulness applied in ACT, helps to foster a focus on controlling selected aspects of behavior that can be changed for the better, such as breathing in a normal way rather than in a rapid way when a thought or feeling seems to be causing this type of emotional reaction to occur regularly.

Based on the idea that cognitively healthy adults can control some of their own behaviors and reactions without first having to change their feelings or thoughts or eliminating these thoughts, ACT permits the practitioner to observe and acknowledge their feelings, while still acting to accept these feelings. They can then modify some of their reactions that are not helpful to that person's wellbeing by choosing to behave in ways more aligned with their values, despite the presence of negative emotions. By doing this they can potentially overcome negative thoughts, find ways of carrying out empowering behaviors, acquire more resilience to stress, while minimizing the impact of frequently recommended weightbearing physical exercises that are often pain provoking [25]. As a result, ACT osteoarthritis participants with chronic pain may experience less inflammation, less centrally generated pain [26,27], better self-efficacy [22], an increase in physical activity levels [28,29], improved ability to self-manage the disease [30], less depression [31] and a more functional fulfilled life. A positive reduction in chronic pain would predictably reduce gait problems, falls risk, and associated mortality as outlined by de Kruif, *et al.* [32] [Figure 1].

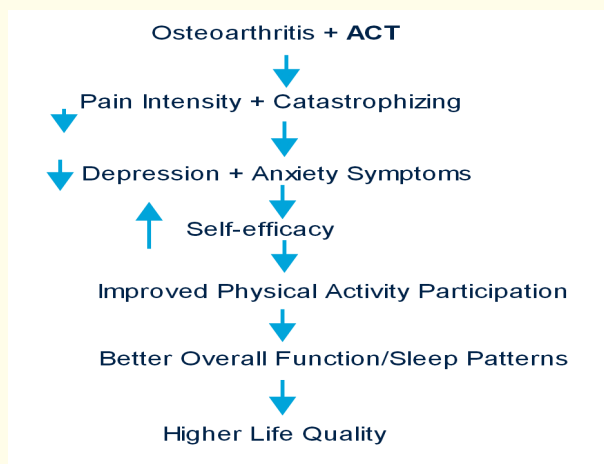


Figure 1: Schematic of utility of ACT for reducing osteoarthritis disability.

Conclusion

Psychosocial approaches for treating chronic pain such as ACT are commonly focused on minimizing pain avoidance behaviors and heightening activity in beneficial behaviors [33]. Given that musculoskeletal conditions such as osteoarthritis represent a highly costly current and future threat to healthy aging [34], the six core processes in ACT designed to help clients faced with irreversible challenges achieve a rich meaningful life and summarized below may provide a novel effective and cost-effective initiative for reducing this immense health burden [35-37]. These processes include:

- **Acceptance** – of one’s feelings
- **Contacting** – or connecting with what is happening in the present
- **Committed action** – or carrying out actions aligned with one’s goals and deepest values
- **Diffusion** – actively letting go of painful thoughts and distancing oneself from these
- Observing ones’ self and recognizing one’s negative self-beliefs
- **Values** – thinking about what matters most and reframing thoughts and behaviors accordingly [36].

Potential hypothesized benefits that might be studied in this respect are direct reductions in pain, increases in pain tolerance, better ability to control weight, greater likelihood of initiating physical activity practices, better sleep patterns, less anxiety and depression, more adaptive behaviors, and higher life quality. Modes of delivery that might be helpful include internet, videos, peer modeling, and individualized approaches.

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