

Acceptance and commitment therapy in the treatment of chronic pain

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I. Introduction: Pain and suffering

Human beings, unlike animals, seem capable of suffering in the midst of abundance. If animals are given food, warmth, shelter and care, they seem perfectly content, while human beings, on the other hand, with far greater luxuries, mostly seem discontent. This paradox of human suffering can be illustrated by Sweden's example. Citizens of Sweden enjoy one of the highest standards of living and best working environments in the world. Everyone is fully covered by free and high quality health care. Excellent education, including university study, is free and open to everyone. Nowhere else in the world is there more vacation time, a shorter working week, a greater number of holidays, or longer paid maternity leave. At the same time, Sweden has more workers on sick leave and work related disability due to chronic pain and stress-related disorders than anywhere else in the world. Sweden also has one of the world's highest rates of suicide. This paradox suggests that human suffering is not easily reduced by higher standards of living, free access to high quality health care and education, and good working environments. In fact, attempting to reduce human suffering in these ways may lead to other problems.

Clients with chronic pain suffer greatly as do many professionals in their attempts to help them. Most traditional medical treatment for chronic pain aims at reducing or managing the pain sensations. Painkillers, muscle relaxants, and anti-depressant drugs are the most common treatments. In recent years, several meta-analyses evaluating the established pain treatments used today (Bigos, Bowyer, & Braen, et al., 1994; Morley, Eccleston, & Williams, 1999; van Tulder, Goossens, Waddell, & Nachemson, 2000) have shown that these medical treatments, which may be effective in acute pain, are not effective with chronic pain and may, in fact, be causing further problems. A radical and provocative conclusion drawn by the authors of a Swedish government evaluation (van Tulder, et al., 2000) of all established medical treatments offered today was that the best treatment a primary care physician could

give a patient with chronic pain was nothing. Providing no treatment at all had far better results than any of the medical solutions offered today for chronic pain. Most of the pain treatments are designed for and useful for acute pain but used in the long run may create more problems such as substance abuse and avoidance of important activities. Pain, in itself, is an inevitable part of living. Without it we could not survive. The common element in most of the pain treatments developed in western cultures over the past 50 years is that they emphasize avoiding pain or fighting to reduce pain. When pain was unavoidable, we tolerated it. When pain became avoidable, it became intolerable. What we have created, with all of our painkillers and pain management strategies, is an intolerance and increased sensitivity to pain.

II. Overview of ACT for chronic pain

Acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is an acceptance and mindfulness based approach that can be applied to many problems and disorders, including chronic pain. It appears to be a powerful therapeutic tool that can reduce suffering both for the client and the treating professional. ACT emphasizes observing thoughts and feelings as they are, without trying to change them, and behaving in ways consistent with valued goals and life directions. ACT has shown promising results in several recent studies (Bach & Hayes, 2000; Bond & Bunce, 2000; Dahl, Wilson & Nilsson, in press; McCracken, Vowles & Eccleston, 2004; Zettle, 2003).

The basic premise of ACT as applied to chronic pain is that while pain hurts, it is the struggle with pain that causes suffering. The pain sensation itself is an unconditioned reflex serving the function of alerting us to danger or tissue damage. The noxious sensation of pain is critical for our survival. The same applies to emotional pain, such as the “broken heart” we feel from the death of a loved one or loss of a relationship. We know that it is natural and necessary to feel such pain in the mourning process in order to heal and go on with our lives. In the case of chronic pain, causal and maintaining factors may be unclear, and efforts to

reduce or eliminate the pain may be unsuccessful. In these cases, continuing attempts to control pain may be maladaptive, especially if they cause unwanted side effects or prevent involvement in valued activities, such as work, family, or community involvement (McCracken, Carson, Eccleston, & Keefe, 2004).

McCracken et al. (2004), in their development of the Chronic Pain Acceptance Questionnaire (CPAQ), have shown two primary aspects of pain acceptance to be important: 1) willingness to experience pain and 2) engaging in valued life activities even in the face of pain. Acceptance of pain was correlated with lower self-rated pain intensity, less self-rated depression and pain-related anxiety, greater physical and social ability, less pain avoidance, and better work status. This study also showed that acceptance of pain was not correlated with pain intensity. In other words, it was not those persons with less pain who were more willing to accept pain. In addition, laboratory studies with clinical and nonclinical populations (e.g. Gutierrez, Luciano, Rodriguez & Fink, in press; Hayes et al., 1999; Levitt, Brown, Orsillo, & Barlow, in press) have shown that acceptance techniques used in ACT (such as observing and accepting thoughts and feelings as they are) produce greater tolerance of acute pain and discomfort than more traditional techniques of pain control, such as distraction and cognitive restructuring. Pain tolerance was measured as the duration of tolerance and time to recuperation from different forms of discomfort such as holding a hand in ice water or inhaling carbon dioxide enriched air, which causes panic-like physiological sensations.

In ACT and other mindfulness-based approaches, pain is seen as an inevitable part of living that can be accepted, whereas struggling to avoid inescapable pain causes more suffering. The struggle with pain is seen as a form of non-acceptance or resistance to “what is.” The intensity of the suffering depends on the extent of the client’s fusion with thoughts and feelings associated with the pain. Fusion is the extent to which the client believes the pain-related thoughts (e.g., “I can’t do anything useful or enjoyable because of my pain” and

“I have to get rid of my pain before I can do anything I value in life”) and acts in accordance with these thoughts and related emotions. In this way, most of the suffering in chronic pain is self-created and unnecessary. The more the client struggles to escape the pain, the more he or she suffers. The aim of ACT in the treatment of chronic pain is to help the client to develop greater psychological flexibility in the presence of thoughts, feelings, and behaviors associated with pain.

A. Mindfulness in ACT

Mindfulness is a key element used in ACT to establish a sense of self that is greater than one's thoughts, feelings, and other private events. By practicing mindfulness exercises, clients learn to develop an “observer-self” perspective, in which they can examine previously avoided thoughts and feelings in a nonreactive and nonjudgmental way. Adopting this observer perspective facilitates cognitive defusion, in which the client learns to notice thoughts without necessarily acting on them, being controlled by them, or believing them. Thus, pain-related thoughts that tell the client to avoid particular situations or activities can be seen for what they are (thoughts), rather than what they say they are (truth or reality). The observer-self perspective also allows exposure to previously avoided emotions and sensations to take place. Exposure generally reduces fear of these phenomena and leads to greater behavioral flexibility in their presence. Finally, mindfulness helps the client maintain awareness of the present moment and develop persistence in taking steps in valued directions.

The use of mindfulness is critical in helping clients to identify valued life directions that are intensely personal and deeply important to them, and that will provide natural positive reinforcement. Clients who are “stuck” in chronic pain are mostly active in the non-vital struggle of reducing pain rather than living the vital lives of their choice. Most clients with chronic pain will come to the pain clinic saying that all they want is to become pain free. Much of their focus in life is on pain management. There is not much vitality in nursing pain

symptoms. On the other hand, valued directions, which have probably been put on hold in the service of reducing pain, contain the positive reinforcement or vitality needed to motivate the behavior change to resume living a valued life. From an individual point of view, valuing is something intensely personal, and in a deep sense of the term, freely chosen. Valuing is a term used in ACT that means acting in your valued directions, in the face of having thoughts and feelings that may be unpleasant or painful.

B. Other elements of ACT in the treatment of chronic pain

The traditional cognitive behavior therapy (CBT) approach to treatment of chronic pain attempts to reduce pain behaviors and increase healthy behaviors. ACT takes a different approach to the phenomena of chronic pain, which is characterized by building psychological flexibility in the context of the client's values. Several concepts are important in understanding the ACT approach to chronic pain.

1. Experiential avoidance of pain

Experiential avoidance is the negative evaluation of and unwillingness to maintain contact with internal experiences, such as bodily sensations, emotions, cognitions, and urges, and efforts to avoid, escape, change, or terminate these experiences, even when doing so is harmful (Hayes, Wilson, Gifford, Follette, and Strosahl, 1996). Typically, when we feel pain sensations, the sympathetic nerve system is alerted and we avoid or escape pain before having time to think. This reflex is essential for survival. In addition, however, human beings can imagine pain and react to it as if it were truly present. For example, we cringe at the thought of having our teeth drilled, although no drill is present. We may get frightened when we feel our own heart palpitations, or tense and apprehensive if we expect pain. If we react to these thoughts, sensations, and expectations about pain with avoidance, escape or resistance, we may create more problems. For example, we may avoid situations or activities that are necessary for our well-being, such as going to the dentist or engaging in aerobic exercise.

The more we attempt to avoid pain and the associated situations, thoughts, and activities, the more restricted our lives become. One of the aims of ACT in the treatment of chronic pain is for the client to accept that pain is a normal and inevitable sensation that will come to all of us who live. Anxiety and fear are natural reactions to pain and are normal and inevitable as well. Using mindfulness exercises, the client can learn to see pain sensations as normal physical warning signals alerting attention, or as part of their ongoing chronic pain condition. The client learns to observe the natural tendency to escape or avoid pain. Being present to this process improves ability to make active choices about whether avoidance or exposure to the pain experience is more functional.

2. Pain mindscripts

In the ACT model, the human mind is sometimes called the “don’t get eaten machine.” Its job is to compare, evaluate, make judgments, remember past dangers and failures, and warn about potential future catastrophes. As soon as pain sensations have been perceived by the brain, the mind starts producing cognitions or “scripts” about the pain. These mindscripts include thoughts regarding the causes of pain and rules aimed at protection from further pain. Common rules include the following themes: “a person with your pain cannot work,” “take care of your pain first before you do anything else,” “any physical exertion might cause more pain,” and “avoid any stress or demands until you have gotten rid of your pain.” Rules like these contribute to a life characterized by pain avoidance and inability to move in valued directions. If the client is fused with these beliefs, his or her behavior is unlikely to change, regardless of the treatment. One of the aims of ACT is to defuse the client from these mindscripts. The client learns through the practice of mindfulness exercises to adopt the observer-self perspective. From this perspective, the client learns to observe and detach from the scripts that the mind produces. That is, the client learns that, “I have thoughts, but I am

not my thoughts, I have feelings but I am not my feelings. I am much greater than all of these components, and I do not have to be controlled by my thoughts and feelings.”

3. Values illness

In the ACT model, values illness is a condition that develops when a person puts valued activities on hold in the service of reducing symptoms, in this case pain. As pain management occupies more and more of the person’s time, other valued activities are neglected. For most people, valued activities such as social contact, exercise, intimate relationships, parenting, professional work, or community involvement give meaning to life. By neglecting these naturally reinforcing activities, we risk losing that which is meaningful and becoming depressed. When pain management becomes our main occupation we are likely to suffer from “values illness.”

Several exercises can be used to help the client identify longstanding consistent values. One method frequently used in ACT is establishing the client’s life compass. This method will be illustrated in the case example later in the chapter. The purpose of making the compass is to help the client to express consistently valued directions for his or her life AND to look at how he or she is actually living today. The life compass also clarifies the verbal barriers or reasons why the client believes he or she cannot move in those valued directions.

Another exercise that we have developed for identifying valued directions is the funeral exercise. The client is asked to imagine being present at his or her own funeral. The client is asked to invite the 5 or 6 persons he or she would most want to be present. The exercise has three parts. In the first part, the client expresses what he or she fears the loved ones present will be thinking about the client as they say farewell. In the second part, the client listens to the loved ones as they express the fears of the client. In the final part, the client gets a second chance and is instructed to speak directly to each of the loved ones. The client is asked to express what type of relationship he or she wants to have with each of the

loved ones and also make a commitment with regard to what he or she is now willing to do in order to create that relationship. Committed action or “valuing” refers to making public statements about doing whatever needs to be done to start moving in that valued direction.

For the client who has been occupied by pain management, this exercise brings to light the discrepancy between deeply important values and activities of pain management. The fears are commonly described around the following themes: “I’m afraid my children are thinking that I only thought about my pain the past year and wasn’t there for them,” “I’m afraid my friends will think that I didn’t care about them because I didn’t take the time for them,” “I’m afraid my husband (partner) would think that I let my marriage go down the drain and didn’t take the time to develop it,” and so on. The client clearly sees the discrepancy between his or her vital valued directions (being there for my children, working to maintain my marriage, keeping the vitality in my friendships) and the non-vital dominating activities done in the service of pain management.

For most clients, seeing the huge discrepancy between what we value and how we act can be enough to motivate significant behavior change in the valued directions. The client’s valued directions are the natural positive reinforcers which motivate the hard work of exposure in therapy. Pain management cannot be a valued direction in itself because it contains no natural positive reinforcers. The client who has been occupied by pain reduction thoughts and behaviors probably needs to re-connect to deeply important life directions. In sum, all three of these components (experiential avoidance, pain mindscripts and values illness) should be addressed with the aim of creating psychological flexibility.

4. Clean pain and dirty pain

Clean pain (unconditioned pain) is the hurting sensation itself alerting us that something is wrong. It is natural to avoid and escape clean pain. Dirty pain (conditioned pain),

on the other hand, is created as a result of our resistance to thoughts, expectations, and associated feelings of pain. When we lower our tolerance to thoughts and feelings associated with pain and get involved in activities focused of avoiding future pain, we develop dirty pain. ACT distinguishes between avoiding dangerous events or injury (which is usually adaptive) and avoiding feelings and thoughts about dangerous events (which is often maladaptive). “Pain flourishes in your absence”. While the client is “absent” from the present by living in the pain mindscripts of the past or future there is little control over one’s life. Neither the past nor the future is within our control. We are only in control of the present. Getting present to the actual pain sensation and discriminating clean from dirty pain is an essential part of the treatment.

C. How the ACT approach to chronic pain differs from traditional CBT

In general the difference between the traditional CBT treatment model and the ACT model of chronic pain lies in the contextualistic philosophy underlying the ACT therapy. The underpinnings of functional contextualism with its unique theory (Relational Frame Theory) of language and cognition leads to a treatment model of chronic pain that, like traditional CBT, is exposure based but looks quite different. In the traditional CBT approach to chronic pain there is an emphasis on reducing pain behaviors and increasing healthy behaviors. Traditional behavioral techniques such as shaping, graduated physical training, pain education, social skills training, cognitive restructuring and contingency management are used to reduce pain behaviors and build normal movement, relaxed muscles and ergonomic working techniques.. Common CBT rehabilitation goals for clients include improving physical fitness, improving social skills such as assertiveness, increasing pain coping skills, and improving ergonomic skills for working. The multidisciplinary approach to rehabilitation has been acknowledged as one of the most effective treatment approaches for chronic pain as compared to most medical approaches to pain. (REF)

The difference in the ACT approach is mostly in the contextual framework including the mindfulness approach. Clients in ACT as opposed to traditional CBT re-connect to their own values context which then serves as the motivation for behavior change in valued directions. In the ACT approach, positive reinforcement or what we call vitality is identified through the use of values context and mindfulness exercises. In this way, the values context provides the meaning and motivation for the client to develop willingness to make the changes that are needed to get back on life's track. The ACT approach focuses on empowerment of the individual's own resources for rehabilitation. The therapeutic relationship differs from the traditional CBT model in that the client is regarded as competent and able to take charge of his or her own rehabilitation. This in turn creates other differences. For example, when acceptance, mindfulness, defusion, and exposure are used in traditional CBT they are generally used along with a variety of other techniques all linked to the hope that pain will go down or be better managed as a result of their use. Conversely, in ACT acceptance, mindfulness, defusion, and exposure are never linked to pain management, reduction, or coping per se. Instead, they are methods of enhancing a vital life. In sum, the ACT model differs from traditional CBT in its focus on moving toward a vital life rather than on pain management.

III. Case Study

Following is a real life case of a 46-year old woman named Susan who has been diagnosed with fibromyalgia. When Susan came to the clinic, she had been on disability for the past year and she had little hope of ever returning to work. In the first part of this section Susan tells her story. The second part is a transcript of much of Susan's first ACT session, which illustrates fundamental therapeutic components. The third part illustrates how specific mindfulness exercises are used within the ACT context.

A. Susan's story

I can begin by saying that I feel disappointed and deserted by medical professionals. I have been let down by everyone in the health care services who have promised to help me. I have done everything I was told to do by every sort of health care professional and I am today far worse off than I was at the start. I hurt all over my body and I am depressed. I feel like I have lost about everything that meant anything to me, all because my pain. If I could just find a cure I could start living again. I have tried everything in order to get rid of it. I went on sick leave and avoided the lifting and the stress that was causing my pain. I reduced all demands so that I could give myself a break. I even stopped seeing my friends so that I could completely focus on getting better. Essentially, I put my life on hold in the service of getting rid of my pain, but strangely enough, the opposite happened. The more I gave up and the more I tried to manage my pain, the worse it got and the more depressed I became. Taking care of my pain became a full time occupation. I tried pain killers, anti-depressants, muscle relaxers, sleeping pills. I tried physical therapy, massage therapy, acupuncture and acupressure. I went to a counselor and talked about my pain. I tried to change my way of thinking and be more positive. I went to the fibromyalgia self-help group and learned more about my illness. I tried health foods and even went to a healer. And despite having spent the past two years doing nothing but trying to get rid of my pain, I have never felt worse. I have more pain now than before I went for help AND I have lost virtually everything in my life. I have lost my job, my self confidence, and have small chances of getting back to work. I have gained 40 lbs and feel bad about myself. I have lost my friends and my social life. I have lost my sexual interest and my husband is not interested in any intimate relationship with me. I have stopped going to my kids' activities and my relationship with them is worse. I don't have the energy to invite anyone home or even go out if I get invited so I feel isolated. Right now I have no hope of ever getting better. So the best thing you can do to help me with is to write an evaluation saying that I am unable to work so that I can get permanent disability.

B. Session 1

Following is a transcript of the first session with Susan. The aim of the session is to identify and reconnect to her valued life directions, to examine the verbal barriers stopping her from moving in these directions, and to examine the workability of the strategies she is using to solve her problems.

Therapist: From your description Susan, it sounds like your pain is squeezing the life out of you.

Susan: Yes, I am desperate. I don't know what else to do. That is why I came to you. I was hoping maybe this clinic had something I haven't tried.

T: I get the sense of your suffering and your losses. It sounds like you have given up most everything that meant anything to you in the service of quieting that pain down.

S: That's the strange thing. The more I tried and the more I sacrificed, the worse the pain got. It just makes no sense.

T: Let me tell you a metaphor that is related to what you are talking about. Imagine when you go home tonight that you find a baby tiger in your kitchen. Can you see him there sleeping by the stove? When you come in, he wakes up and snarls at you. You know that tigers are meat eaters and you instinctively know that he is hungry. You go to the fridge and find some meat to give him. He is satisfied for a little while and you relax and get ready to go on with your activities when he snarls again. Again, you know what to do and this time you give him a bigger portion of meat and hope that he stays quiet a longer time. But what happens is that the more you give him, the hungrier he gets. And soon you are doing nothing else but feeding that tiger. Finally, you have given the tiger everything you have in your fridge and there is nothing else to give. You turn around to tell the tiger that there is no more meat to give him. To your horror, you see that the little baby tiger has become a huge hungry tiger and YOU are his next meal. What have you created?

S: A monster!

T: Think of that baby tiger snarling at you as your pain when it started. In the service of quieting down your pain, you started sacrificing activities that are important to you. You might have sacrificed meeting your friends or exercising, or your job, all in the service of getting control over your pain.

S: Yea, I did that, but that's what I was told to do. My doctor told me to go on sick leave and rest up and get better before I went back to work. My physical therapist told me to not do anything that hurt.

T: I know that the health care system gives these instructions and you did your best. Let's just look at what happened. From what you have said, you put one valuable activity after another on hold in the service of getting control over your pain. But instead of getting rid of your pain, it looks like you got a big and hungry pain and lost much of your quality of life.

S: Yes, that is exactly what happened. I thought by focusing on my pain and getting rid of it, I could get back to my life. That's what I was told by everyone I went to. Everyone told me, prioritize getting well. They told me to cut down on my activities and think about myself for a change. That's what I did and look what happened! I lost everything! I thought the health care system knew what they were doing!

T: In order for me to help you I need to know more about the life that you want and that you have lost. I want to know about what you have put on hold while you have been feeding the tiger.

S: (Pause) That hurts to think about. I've tried not thinking about my losses. I've tried to adapt to the ways things are now.

T: And where has that thinking led you to?

S: I've just tried to be realistic and accept the fact that pain rules my life and do the best I can within those limits.

T: And where has that thought gotten you?

S: That's not a thought, it is reality.

T: And thinking that thought, where has that led to?

S: Why do you keep talking about thoughts? I am talking facts! I have lived with this pain for years now and I have accepted that my life as I knew it before I got this illness is over.

T: I can feel that you are suffering, Susan, and it seems to me from what you have conveyed that your pain is suffocating your life.

S: (tears in her eyes) That's the right word!

T: If it is OK with you, I would like to put aside pain for a moment and hear more about the life you want to live. Let's say I have a magic wand and your pain is now gone. What would your life look like? What would you want your life to stand for?

S: I don't really see the sense in thinking about a fantasy that could never happen, but OK. If I could I would get back important parts of my life, like activities with my children, my close relationship with my husband, meeting my friends again and developing my own interests. I would also go back to work and maybe get more education and more qualified job within special education. But I know that none of that is possible so I don't know why you want to talk about dreams that never can come true. I have really tried to NOT think about those dreams.

T: I understand that it hurts to care about directions you would like to go in your life, especially if you feel the door to them is shut for you. Would you be willing, here and now to feel that hurt by looking more carefully at those dreams that you care about. Doing that might give you the possibility of getting closer to what you want. Would you be willing to bring those hurt feelings into this room here and now?

S: I guess so, if that helps you help me.

T: You have mentioned that, if it weren't for your pain, you would like to get closer to your children, your husband, your friends, your own interests and possibly more education that might lead to a more qualified job. I am going to write these directions down in what I will call your life compass. On this compass, there are four more areas as well: community involvement, spirituality, your own parents and siblings and your health. Let's do an exercise in which you think about each of these life dimensions and what is important about them. Think about the very essence of how you want to be in that dimension. Think about what are the most important components that you want in each dimension. Write down your "intentions" above each circle. When you are done with that, I want you to think about what stands between you, today, and following those intentions you have described. You can write these as barriers.

S: OK. (Susan writes on the white board. Her responses are reproduced here in table form.)

<u>Life dimension</u>	<u>Intentions</u>	<u>Barrier</u>
Parenting	be present and mindful with my children, be there for them	tired
Health	exercise regularly, eat healthy foods, get 8 hours sleep	pain
Social relations	give and receive support, feel sense of belonging	no time
Intimate relations	give and receive physical and mental closeness	too fat, afraid
Family	give and receive support, sense of belonging	no energy
Community	contribute to the wellbeing of children	no time
Work	contribute to wellbeing of children with developmental disabilities	pain
Spiritual life	reflect on my place in life, give myself time, show myself compassion	no time
Education/ development	develop knowledge/skills in special education	too old
Leisure activities	develop my creative interests	no time

T: As you look at what you have written here on your life compass, I want you to allow yourself to really look at the difference between your intentions or how you deeply want your life to be AND how you are, in fact, living today. It might be easier for you to think of your intentions as the directions you want your life to go and how you are acting today as your feet. Now look at your life dimensions and see in how many of them are your feet consistently in the direction you want to go. Or you could think of it this way, if your feet were your intentions, which way would they be walking?

S: My God, that is depressing! My feet are going frantically in the opposite directions than where I want to go. What happened? I guess I had a picture of the way I was supposed to be, supposed to live, that influenced my feet more than my own dreams. I did what I thought was expected of me rather than what I really felt was important. I ended up doing what others wanted of me and I let my own dreams down.

T: And how does that feel?

S. Empty and meaningless. I feel like my feet have just been running around in circles trying to please everyone else but lost my own direction.

T: Your dreams, values, and visions are what make living worthwhile, Susan. Those values and dreams are lifelines, for you and me and every other human being in the world.

Let's look at the compass again. In general, is it your belief that you must first get rid of your barriers before proceeding towards those intentions in each life dimension? I mean, for example, do you believe that you first must get rid of your pain before you can go back to work or go towards an education? Do you need to get more energy first then work on improving your relationships with your family?

S: Yes, that is what I believe. If I just could get rid of my pain, get more energy, lose weight, and get more time, I might be able to regain some of that life back. That is what I have been trying to do! Solve those problems.

T: Let's write down all of the strategies that you have worked with over the years to do just that, getting rid of your pain. I can set up a table and you can fill in everything that you have worked with.

Strategies	Results	
	Short term (symptom relief)	Long term (relative to your intention on compass)
<u>Preventing pain</u>		
Sick leave	less demands	farther away from work intention
Avoid physical activity	less strain/stress	farther away from health intention
Avoid going places where I have to sit	less demands/stress	farther away from social & leisure education and spiritual
Avoid intimate relations	less demands	farther away from intimate
Rest	less stress	farther away from all intentions
Massage	feel better short time	farther away from everything
Physical therapy	feels good short time	farther away from own activity
Alternative therapy	short term relief	farther away from life
<u>Controlling pain</u>		
Pain killers	short term relief	farther away from health/social
Stop activity	short term relief	farther away from doing what I want in all activities

T: Now we have listed all the ways in which you have tried to manage your pain. You have worked very hard for a very long time in trying to prevent or directly control your pain. What does your experience say about all of these strategies as far as getting rid of your pain? And secondly, what does your experience say about how these pain management strategies influence your quality of life? I mean, the life you have described in your life compass. Has your focus on pain management got you any closer to that life you want to live?

S: I know the answer to that. I don't want to say it because it makes me feel that I have wasted countless time and money and energy and lost most everything in my life besides all that. I have been disappointed so many times; I don't even want to think about it.

T: I am asking you now if you would be willing to examine your experiences and let yourself feel the hopelessness of this struggle.

S: I don't understand, I came here to feel better not worse.

T: S. I understand that your margins are worn thin and the last thing you want right now is more pain and suffering. But it may be so that in order to get better, you may need to feel worse for a while. Would it be worth it to you, to feel more pain and confusion a while with me in order to find a new path that might lead you closer in those directions that you want to go?

S: But what if there are new and better ways to get rid of my pain? Who knows what new research might bring? Maybe they will find a cure for pain. Then all my struggling might be worthwhile.

T: Maybe they will Susan, who knows. The question remains, what does your experience tell you about your pain and suffering and the strategies you have tried in the service of getting rid of your pain? When is enough, enough? At what point have you suffered enough?

S: Yes, I definitely have. I want to get out of this struggle and be left alone.

T: Be left alone with your pain, letting pain run your life, is that what you want?

S: What choice do I have? My pain has occupied my life. If I just cut down on all other demands and stress, I could probably get by and be ok.

T: Is that what you want for yourself in life? To count your losses and just get by?

S. I have no choice. There is no solution to getting rid of my pain. I can see that today when we have listed all the things I have done to try to manage my pain. There is no solution.

T: Susan, I think you are right. I don't think there is a solution either.

S: You mean I am a hopeless case? Now I really feel lousy.

T: Not you, Susan. You are not hopeless, but the strategies of getting rid of your pain so that you can get back to your life are probably as hopeless as you have experienced.

S: What can I do?

T: Imagine that I have two packages in my hands. In the one package you have complete freedom from pain. And that you know from your own experience is perfectly possible. You can keep yourself drugged all the time. You can drink yourself numb. There are all kinds of ways to numb yourself and be pain free 24 hours a day. But in that package you do not have the life that you want. In the other package, you get the chance to come closer to that life that you want back. You have the chance to get closer to your old or new friends, get closer to your kids again, and get started towards those dreams you had with your husband, get closer to that community work that you have visions about and so on. AND you have your pain, more or less as you have it today. Which of these packages would you choose?

S: That's not much of a choice. Of course I would choose the chance to get my life back. I don't want to be drugged all the time.

T: What I hear you saying Susan. is that you are choosing your valued life and you are willing to make a space for your pain and take it along on your journey?

S: Yes I am willing to do that.

C. Summary of Susan's first session

In the ACT approach to chronic pain, a context of values is identified and used as the motivation for the hard work of rehabilitation. As can be seen in the example of Susan, there is an initial and consistent focus in the treatment sessions on finding the ultimate values in each life dimension. Examining these values is a step toward empowering Susan to take responsibility for her own life direction. Once these values are identified, often described in terms of feelings of vitality, they are used as reference points for behavior change.

The second therapeutic component is examining the verbal barriers that Susan's mind has produced as reasons why she cannot take steps in her valued directions. With the help of the therapist, Susan learns to analyze the function of her verbal reasons rather than dispute their content. The focus is on what these thoughts lead to rather than whether they are true or probable. Mindfulness is used here as a tool for helping Susan to see those verbal barriers as products of her mind attempting to make sense of her pain. By viewing her verbal barriers functionally, rather than by content, she can see that these rules lead her in directions that she does not want to go.

A third component in this session is creative hopelessness, which aims at undermining reason giving and exposes the unworkability of Susan's strategies for solving her problem. Susan is asked to examine the strategies she has used to solve her pain problem. The therapist validates Susan for the hard work of pain management she has done and which has cost her economically and personally. Once, again, Susan performs functional analyses on these pain management strategies, which shows clearly that they have led her farther away from her vital life. She can see from her experience that the strategies of trying to prevent, reduce or control her pain have actually backfired and she has lost out on all counts. This is usually a difficult insight. Susan is asked to face the possibility that the solutions she has invested so much in actually may be part of the problem. Clients in ACT are often taken aback by the insight that doing what seemed logical, rational and normal is clearly unworkable or even pathological. The paradox brought to light here is that Susan is experiencing more suffering because trying to get rid of pain is painful in itself. Seeing and experiencing the hopelessness of these strategies from her own experience helped Susan to let go of ineffective strategies, and opened up space for new ways of approaching rehabilitation.

At the end of the session, an alternative focus of therapy was presented in the form of willingness and acceptance of the pain experience AND taking steps towards her valued life.

Susan is asked if she is willing to make a commitment to be willing. Commitment to stepping up to what needs to be done is a key component in ACT. Therapy is now focused on moving toward a vital life, rather than on fighting against pain. Before this journey begins, Susan will need a safe place when she can expose herself to previously avoided private events. The next session using mindfulness exercises helps Susan to develop a new perspective on her thoughts and feelings.

D. Mindfulness and defusion in Susan's case

Mindfulness exercises are a key element used in ACT and to establish a sense of self that exists in the present and provide a context for the work of cognitive defusion. In the second session, the observer exercise (Hayes et al., 1999) is used to help Susan create a space of flexibility where she can observe her pain-related thoughts and feelings and see how they lead her away from her valued directions and reduce her quality of life. The aim of this exercise is also to empower Susan to see that she has full control over her behavior regardless of what her thoughts and feelings are telling her.

Therapist: Susan, if I have your permission, I would like to do an exercise with you in which we bring those difficult thoughts and feelings into this room.

Susan: I don't know how that would be possible but we can try.

T: I would like to do what is called a mindfulness exercise. Start by your closing your eyes and just listen to my voice.

S: OK

T: I want you to take a deep breath and slowly breathe out. Notice your breathing. Imagine that you are being breathed by the air. Just be passive and let yourself be breathed by the air. Notice that you do not have to be involved in your breathing; your body takes care of itself without any effort on your part. Now, I want you to observe yourself sitting in the chair in this office. I want you to feel whatever you feel in your body. Notice any sensations in any parts

of your body. You might notice your heart beating or some tension in a muscle. Just sense whatever you sense. I want you also to observe the thoughts that come into your head as you are sitting now. If you can, try just to observe your thoughts, the way a cat watches a mouse hole. Just watch each new thought and let it go. If you can, try not to argue with or resist your thoughts that come, just acknowledge each of your thoughts and let it go and watch for the next one that comes (silence for one minute). Now, I want you to observe your feelings. Notice how your feelings might have changed during the time you have been here today. Just notice your feelings as they come and go. If you can, try not to pass judgments on your feelings, just allow them to come forward, acknowledge them and let them go and watch for new feelings (silence one minute). I want you now to notice who it is that is doing this noticing. Notice that it is you in a special state that is here right now noticing your thoughts and feeling and bodily sensations. I want you to be aware and catch that person behind your eyes that has the ability to observe thoughts, feelings and sensations. We can call this person, who is you, the observer self.

I want you now to remember something that happened to you last summer. Something that was significant for you. When you have that picture, I want you to look around you in that situation. If there were people there I want you to look into their faces, into their eyes. I want you to feel what you were feeling at that moment. I want you to think the thoughts you had just then. I want you to feel what bodily sensations you had at that moment. See if you can capture the smell that was present and the sounds (silence for one minute). Now see if you can notice that it was YOU, the observer-self, noticing all these experiences. It is you, the observer-self, who has the ability to re-create a picture from the past like you just did. You were there then and you are here now. The person who we can call the observer-self was aware of your thoughts and feelings then, and is the same person who is here today, aware and noticing your thoughts and feelings and bodily sensations.

We can take a situation even farther back in time. I want you to go back as far as possible to the first memory that you remember very clearly. Go back to the first memory that is very clear to you. Something that was very significant to you (silence for one minute). Take your time and look around. See what you see, hear what you hear, and feel what you feel. What are the thoughts of that little girl? Try to feel what she was feeling. Look at her hand and see that it is your hand although it is the hand of a child. See that her body is the body of a child but it is the same body as is here today. Notice that it was the same observer-self that was there then that is here today. You have been YOU your whole life. Notice that even though your body has changed, your thoughts and feelings have changed, the observer-self is the same. Everywhere you have been, everything you have felt, every thought you have had, YOU have been there noticing.

From your observer-self perspective we are going to examine some important areas of your life. We can start with your body. Your body was once a little baby and it has grown as big as it is today. Sometimes your body is sick and sometimes it is healthy. Sometimes your body is tired and sometimes it is rested. Your body can be in pain or it can feel fine. You have experienced that bodily sensations come and go, yet YOU remain constant. You may have already lost parts of your body, through operations, but YOU remain the same. You have experienced that your body is in constant change and will continue to change; yet from your observer perspective YOU remain constant. Your body is very important to you and you are responsible for taking care of your body but YOU are NOT your body. You are much more than your body. Sometimes you may forget this and think that you are your body. You might even think that you are your pain. When this happens you make yourself vulnerable and can feel hopelessly stuck inside your painful body. You have the ability to observe all your bodily sensations from the observer perspective and pain is no exception. You can observe your pain without becoming your pain. Pain might get very loud and demand your attention the way a

screaming child throws a temper tantrum in order to get you to buy candy. You know that candy is not healthy for the child and you do not want to give in, but because you can't stand his screaming you give in and buy this child the candy. When you do this you teach him that screaming and temper tantrums are effective for getting candy. In the same way, if you yield to your screaming pain by doing what it tells you rather than what you know is healthy and good for you, you create a body that is going to act up everywhere you go. Give yourself a minute to notice the sensations in your body come and go. And as your body changes, notice that your observer-self remains the same. This means that while you have a body and you can observe pain in your body, you are more than your painful body. Notice that YOU are the one noticing.

Let's take a look at your feelings. You have experienced that your feelings are in constant change. You may have had strong feelings about someone or some issue awhile back that you hardly feel anything about today. Today you may observe strong feelings about some things that may be gone tomorrow. One thing is certain. Your feelings, regardless of how strong they feel, will change. Feelings are in constant movement. Your feelings are important to you. With your feelings you are able to feel closeness, love, joy, sadness and other vital dimensions in life. Notice who is noticing those feelings. The you who is noticing is much greater than your feelings. Despite the dramatic changes in your feelings from one second to the next, you remain constant. Your observer-self can monitor feelings without being automatically controlled by them. Your observer-self can feel your feelings and decide from a larger perspective whether to go with a feeling or not. Sometimes you forget this and believe that you ARE your feelings. You can tell when this happens. It happens when you feel that you cannot resist an impulse. You can feel like a victim or slave to a feeling and that you have no choice but to follow what a feeling tells you. When you yield like this to a feeling, you blow life into that feeling and give it power over you. Always remember that it is YOU who

give feelings power. It is only through you that feelings can gain or lose strength. NO feeling can bully you off your set course. Only you are in charge of where your feet go. You are not a victim to your feelings. You are much greater than your feelings.

Let us look at the last and most difficult area, your mind and your thoughts. Your mind has a great analytic ability to solve problems, create structure, organize into categories, evaluate, and make logical judgments. You have experience of how well your mind works in helping you to control or influence external events in your life, such as painting a room, or sewing clothes, or fixing the car. Your mind is very important to you and does an excellent job at what it does. But you also have experience that your mind does not do so well in trying to control internal areas within you. Internal things, such as thoughts and feelings, just don't seem to be controllable. Your thoughts are in constant change. At some time in your life you may have had definite thoughts about something and then you got an education or more experience and your thoughts changed. Even as we have been sitting here today, your thoughts may have changed. Even though you have observed your thoughts in constant change, YOU have remained the same. Sometimes you forget this and believe you are your thoughts. When you identify yourself with your thoughts you may become more vulnerable. You can easily be insulted or threatened when your thoughts are questioned by others. From the observer perspective you can monitor your thoughts and see them as they are; products of your mind, your past learning experience. You have experience that when you come into a new situation or feel a pain sensation, your mind produces thoughts to try and make sense of the situation. Your mind produces reminders of similar past dangers and warns you to beware. From the observer perspective you can appreciate your mind's efforts in trying to protect you and make the choice of what action you will take. You are much greater than your mind.

Just as a matter of experience you have noticed that you are not just your body, not just your feelings, not just your pain, and not just your thoughts. All of these things are the

content of your life while you are the arena, or the context or the space from which all this content unfolds in your life. As you think about that, notice that the pain, which you have been struggling with, and the treatments and the work issues are not you. No matter what happens with all those battles, you will remain the same, unchanged, just noticing what happens. See if you can use this observer perspective to let go of some of this content and give yourself space. You can feel secure that however things turn out you will remain you. Maybe you don't need to invest yourself in fighting because you have seen these fights all your life and whether one side wins or loses doesn't much matter in the long run. You will remain the same.

In this mindfulness exercise, Susan finds a transcendent part of herself where she can be aware of difficult or painful feelings, sensations, or thoughts without being threatened by them. From this observer position Susan is more ready to expose herself to pain and associated emotions and thoughts.

Other mindfulness exercises may be used to discriminate vital from non-vital life directions. Exercising mindfulness helps the client to be present in all activities and make active choices about whether these activities are consistent with valued directions or not. For example, by exercising mindfulness in her daily life, Susan discovered that many of her activities were in non-vital directions. Susan did an exercise program daily because the physical therapist required her to do so, she was following a diet because her doctor told her she must lose weight, and she was going to pain management lectures because her insurance company demanded it. Such behaviors are defined in ACT as "pliance" or rule governed, non-vital behaviors that are not likely to last beyond the life of the artificial reinforcers that govern them. In ACT, one the most important aims is to find the vitality of natural positive reinforcers in the activities we choose. The activities of rehabilitation, such as exercising, eating nutritious food, and learning about pain all may be naturally reinforcing, but Susan was

doing them primarily because she had been told to. The use of mindfulness helped Susan to make active choices about which activities coincided with her own values.

E. How mindfulness helped Susan

Susan started taking steps in her valued directions after the first session. Re-connecting to her deeply held values and seeing the discrepancy between how she wanted to live her life and how she, in fact, was living was enough to get her back on track in a couple of dimensions. Susan called her two best friends and told them how much they meant to her and initiated a meeting. She also dropped by her former work place and told her co-workers how much her work meant to her and that she wanted to come back. During the second session of mindfulness, Susan was able to adopt the observer-self perspective and monitor her thoughts and feelings without being fused to them. As soon as she was able to change the context and not identify herself with her pain and associated thoughts and feelings she created flexibility for herself. This flexibility helped Susan to let go of what she could not influence and see the possibilities in the here and now that she could influence. Susan started taking steps towards finishing her college degree so that she could pursue her professional goals. As she took those steps, she encountered verbal barriers that attempted to stop her. Susan's experience with mindfulness exercises allowed her to recognize those barriers and accept them compassionately without letting herself get pushed off track.

Empirical support for ACT with chronic pain

There is growing evidence for the effectiveness of using an ACT model generally (Hayes., Masuda., Bissett., Luoma, & Guerrero, 2004) and specifically for chronic pain. The ACT model for chronic pain shown here is an exposure based treatment and as such is built on the shoulders of the well documented effects of CBT treatment of chronic pain (Linton, 2000). The specific ACT treatment model for chronic has only been recently applied and evaluated in clinical trials. To date there are two group studies, one of which is a RCT, and

one single subject design. In one of the group studies by McCracken and co-workers (McCracken, Vowles, & Eccleston, C. in press, *Behaviour Research and Therapy*). An acceptance-based treatment for persons with complex, long-standing chronic pain was evaluated and compared to a waiting phase. In this study 108 chronic pain patients with a long history of treatment were followed through an ACT-based 3-4 week residential treatment program. Measures improved from initial assessment to post treatment on an average on 34% and 81% of these gains were retained at the 3 month follow-up. Changes in acceptance predicted positive changes in depression, pain related anxiety, physical disability, psychosocial disability, and the ability to stand. Positive outcomes were also seen in a timed walk, decreased medical visits, daily rest due to pain, pain intensity and decreased pain medication use.

In a randomised controlled study by this author and co-workers (Dahl, Wilson & Nilsson, in Press, *Behavior Research and Therapy*). This study investigated the effects of a brief Acceptance and Commitment Therapy intervention for the treatment of caretakers and practical nurses working in the public health sector who showed chronic stress/pain and were at-risk for high sick leave utilization. ACT was compared in an additive treatment design with Medical-Treatment-As-Usual (MTAU). A group of 19 participants were randomly distributed into two groups. Both conditions received medical treatment as usual. The ACT condition received 4 one-hour weekly sessions of ACT in addition to MTAU. At post and 6-month follow-up, ACT participants showed fewer sick days and used less medical treatment resources than those in the MTAU condition. Quality of life measurements showed a non-significant trend favoring ACT. These improvements could not be accounted for by remission of stress and pain in the ACT group, since no between groups differences were found for pain or stress symptoms.

There are to date three published case studies showing how the ACT model can be used with individuals with a severe chronic pain. One study shows how ACT works with a cancer patient with severe pain (Montesinos, F., Hernández, B., & Luciano, C. 2001) and one with a general debilitating general pain state (Luciano, Visdómine, Gutiérrez, & Montesinos, 2001) A recently published case study (Wicksell, Dahl, Magnusson, & Olsson, in press) investigated the effect of ACT for a young person with debilitating pain. In this study, it was hypothesized that avoidance of pain and pain related stimuli was a central theme in the disability. In the ACT model used building activity in valued directions was the focus rather than symptom reduction. As the young client moved in valued directions, exposure to avoided pain stimuli took place naturally. The results of this study showed improvement in valued life activities such as school attendance, pain ratings and individual goal achievement. These results indicate that acceptance based treatments might be a promising alternative for young clients who do not show improvement in the traditional pain management programs.

IV. Implementing mindfulness with the treatment team

Mindfulness can be used in consulting with rehabilitation teams in a numbers of ways. Clinical work in chronic pain is frustrating for rehabilitation professionals because clients who have gotten stuck in the vicious circle of pain management rarely get unstuck and move forward. Rehabilitation team members often get stuck themselves over time and lose much of their initial flexibility, empathy and compassion. Mindfulness exercises can help team members in the same way that it helps clients. It aims at creating psychological flexibility, re-connecting to deeply held values, and defusing from unhelpful cognitions. Here is an excerpt from the exercises we have created for this purpose.

“Now I want you to go back to the time when you first started your job working in Rehabilitation. Can you see yourself there full of optimism and energy, full of compassion for helping clients with different disabilities come back to their lives. Notice the thoughts and the

feelings you had at that time. The feeling that you wanted to make a difference for these people, a difference in this world. Notice the person behind your eyes who can notice those feelings and see those thoughts. See if you can notice the difference between the optimism you felt then and what you feel today. Perhaps you hadn't worked very long before you started to see that some clients did not get better, despite your best efforts. A feeling of hopelessness emerged around certain clients. In vain, you gave homework assignments, training programs and evidence-based advice tailored especially for them. Some clients appeared to function better as long as you worked with them but quickly fell back into old destructive patterns when they were left on their own. Notice these feelings of hopelessness and how it affected your ability to work with these individuals. Is it possible for you to feel those feelings of frustration when you have worked hard to help prepare a client for a better life that he or she never gets the chance to experience? Perhaps you also can feel the frustration of seeing clients that seem to have no illness at all but who see themselves as incapable of working or living a vital life.....

Let us work together today to create a space of flexibility around these “stuck” thoughts and feelings so that we can together reclaim our compassion and vitality as the therapists we want to be....”

Much of the work in consulting or supervising rehabilitation teams using ACT is no different than working with clients. The aim of an ACT supervisor could be summarized as follows: help the team to re-connect to deeply held values, both individually and collectively, identify the verbal barriers standing in the way from moving in valued directions, reduce cognitive fusion through the use of mindfulness and role-playing, undermine experiential avoidance by illustrating its unworkability and how it conflicts with valued directions, teach acceptance and willingness as an alternative coping response and practice defused exposure to

difficult, frustrating thoughts and feelings and take steps in valued directions.

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