

The Application of Acceptance and Commitment Therapy with Hemodialysis Treatment Adherence: A Case Study

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Individuals diagnosed with end-stage renal disease (ESRD) who choose hemodialysis as their renal replacement therapy normally receive treatment 3 times a week in an outpatient facility. Adjusting to this life-sustaining treatment regimen involves creating a new way of life that challenges the patient's coping mechanisms. Adherence to the hemodialysis prescription is a major problem among people who have ESRD and significantly impacts their treatment outcomes and mortality rates. This study attempts to explore the use of acceptance and commitment therapy as a possible intervention for nonadherence to hemodialysis.

INTRODUCTION

Adherence to a life-sustaining renal replacement therapy prescription, such as hemodialysis, is a major issue among people with end-stage renal disease (ESRD). Nonadherence to the prescribed hemodialysis regimen is a common problem and is associated with increased morbidity and mortality (Denhaerynck, Dominique, Fabienne, Garzoni, Nolte, & De Geest, 2007). Patterns of nonadherence are typically established in the first 6 months of treatment and continue thereafter. Missing dialysis treatments increases a person's risk for infection, cardiovascular disorders, and hospitalization.

People with ESRD are required to permanently alter their lifestyles to accommodate the hemodialysis schedule. They experience a diminished sense of control and often seek methods to re-establish that control. These behaviors may manifest in positive or negative ways. A common theme in the adherence literature is the patient's desire to exert a measure of control over the disease and the dialysis process. Nonadherence may be one way that people on hemodialysis attempt to exert some control over their lives (Breiterman-White, 2004).

Barriers to treatment adherence may be due to concrete issues such as transportation or conflicting work/family schedules. However, nonadherence may also be a sign of emotional or psychological problems, such as depression. Depressive symptoms are present in approximately 30% of patients receiving chronic dialysis therapy, making it the most common psychiatric problem in these patients (Khalil, Lennie, & Frazier, 2010). Depressive symptoms may compromise an individual's ability to adhere to the hemodialysis regimen and instill hopelessness about the disease and prognosis. Decreased behavioral compliance with the dialysis prescription is correlated with an increased level of depressive affect in people on hemodialysis (Kimmel & Peterson, 2005).

Nephrology social workers are mandated by the Medicare Conditions for Coverage (Centers for Medicare & Medicaid Services, 2008) to be part of the interdisciplinary team in an outpatient dialysis unit. They provide a variety of concrete services and psychosocial interventions to this challenging population. Addressing the issue of nonadherence is relevant to the role of nephrology social work. Providing

skilled psychosocial interventions, such as acceptance and commitment therapy (ACT), might possibly ameliorate patient risk factors and treatment outcomes. People with ESRD are more likely to access these psychosocial treatment services through their nephrology social workers than anywhere else (Callahan, 1998).

ACT

ACT (Hayes, Storsahl, & Wilson, 1999) is a modern behavior therapy that uses acceptance and mindfulness interventions in combination with commitment and behavior change strategies to help clients build more purposeful, meaningful lives (Flaxman, Blackledge, & Bond, 2011). Considered to be one of the "third wave" cognitive behavioral therapies, ACT has been gaining momentum in intervention research literature over the past decade (Montgomery, Kim, & Franklin, 2011).

ACT is theoretically rooted in relational frame theory (RFT), a behavioral theory of human language and cognition. RFT explains why sights, sounds, and events can trigger painful thoughts and emotions. RFT suggests that a more practical way of addressing problematic thoughts and emotions involves interventions that develop the ability to experience these emotions in a different manner, rather than attempting to change the emotions.

There is an existential component to the ACT model: providing an opportunity to find meaning and purpose in one's life, even in the midst of pain and suffering. According to Frankl (2006), the meaning in life and self-transcendence are essential for survival and healing. Doing what is consistent with our highest value discovers the meaning in life. In ACT, the goal is not just to reduce human suffering, but to help people grow as a result of their suffering and to use those experiences as a springboard to create rich and meaningful lives (Harris, 2009).

ACT's two major therapeutic goals are: 1) fostering acceptance of problematic thoughts and feelings that cannot be controlled and 2) commitment and action toward living a life according to one's chosen values. ACT does not attempt to have people alter their thoughts and feelings, but attempts to change their responses to thoughts and feelings. ACT therapists direct people toward becoming more

accepting of their emotions and present circumstances in the face of strong emotions they might otherwise be avoiding. They also assess how people struggle to resolve their problems and direct them to give up those struggles that might be making their problems worse (Montgomery, Kim, & Franklin, 2011).

ACT suggests that if psychological distress is a normal part of life that cannot be avoided, and if frequent avoidance tends to both exacerbate distress and decrease quality of life, then psychotherapy should help clients find ways to accept the distress that arises in the course of pursuing a meaningful, purposeful, and vital life (Flaxman, Blackledge, & Bond, 2011).

ACT consists of 6 therapeutic core processes that can be divided into 2 main components: mindfulness and acceptance processes, and commitment and behavior change strategies. Mindfulness and acceptance processes include: 1) acceptance: the willingness to experience any degree of psychological distress, and continue to move forward to experience what is valued; 2) cognitive defusion: techniques designed to alter the context in which one views thoughts, particularly thoughts that produce harm; and 3) self-as-context: a person's view of him- or herself, based on aspects of what one is currently thinking and feeling. These 3 processes help transform the cognitive and emotional barriers that appear to stand in the way of a values-driven life.

Commitment and behavior change strategies center around: 1) contact with the present moment: closely monitoring how one is effectively or ineffectively behaving in the present moment; 2) values: verbal statements about what an individual desires to experience throughout their lives; and 3) commitment: behaving consistently to work toward one's values.

These 6 core processes are linked to each other to enhance psychological flexibility. Fletcher and Hayes (2005) defined psychological flexibility as the ability to fully contact the present moment, to be mindful of the psychological reactions it produces, and to change behavior to enhance life, which is driven by fulfilling chosen values. Increased psychological health, from an ACT perspective, involves increased psychological flexibility.

There is no correct order when working on these 6 processes and not all require concentration. ACT therapists use a variety of tools and techniques for each process, such as metaphors, paradox, and experiential exercises.

Treatment using ACT begins with an assessment of one's experiential avoidance, the act of avoiding unpleasant thoughts, emotions, and other private experiences (Flaxman, Blackledge, & Bond, 2011). ACT targets experiential avoidance strategies (also known as emotional control strategies) only when clients use them to a degree that they become harmful. Some experientially avoidant behaviors, such as excessive drinking and drug use, cause

physical harm or compound the problem. Behaviors involving procrastination and avoidance of conflict make the precipitating distress worse.

ACT has been studied with a variety of illnesses that social workers are frequently called upon to help manage and treat in mental health and health settings. ACT has been proven effective with a diverse range of clinical conditions, such as depression, obsessive-compulsive disorder, workplace stress, chronic pain, the stress of terminal cancer, anxiety, post-traumatic stress disorder, anorexia, substance abuse, and even schizophrenia (Harris, 2006).

This study attempts to explore the application of ACT to address the problem of nonadherence with the dialysis prescription. The process of adjusting to and learning to live with ESRD is complex, involving strong reactions to the loss of life as it was and the re-establishment of a new identity. ACT's processes of clarifying values and committing to actions, which promote an increase in quality of life, may be beneficial to people with ESRD.

The goals of this case study are to determine if the application of ACT can be successful in increasing hemodialysis prescription adherence and can improve one's quality of life.

CASE STUDY

Psychosocial History

Steven is a 49-year-old single Caucasian man who has congenital facial abnormalities. He was abandoned by his biological mother at birth and adopted by his present family at age 13, although they had been a part of his life from age 4. Steven is a high school graduate, has never married, and has been employed in the food service industry for most of his life.

Steven lives alone in a rented room and works part-time in a supermarket deli. He has a history of drug and alcohol abuse, and has had three inpatient rehabilitations, each of 3 months duration, between 1992 and 2000. Steven was incarcerated several times between ages 18 and 33 for assault and driving while intoxicated. Steven still drinks occasionally and smokes marijuana.

Steven is highly independent and has supportive family and friends. He has suffered from two major losses in his life. Steven's adopted father was in an automobile accident, which left him comatose for 5 years. He died in 1992. Steven's fiancé died in 1996 from cystic fibrosis.

Steven has stated he has abandonment and trust issues. However, once a trusting relationship is developed, Steven is very open with information and honest feelings. Steven displays a friendly demeanor, but angers easily. He has a tendency to be critical of others, especially if he feels something is directed toward him. Steven has a need to feel in control and will become agitated and anxious when he feels out of control.

There is no etiology for his diagnosis of acute ESRD, which occurred in October 2009. Upon meeting Steven for the first time in the outpatient dialysis setting, he immediately mentioned his anxiety about receiving treatment. Adjustment to the illness and the changes in lifestyle, including dietary and fluid restriction, were not easy for Steven. He was free in expressing how change was difficult for him. Establishing a trusting relationship with him was important in order for Steven to utilize the support that could be offered to him as he adjusted to living with ESRD.

During the first year of his illness, Steven discussed the strong emotions he experienced regarding the dialysis treatment. Statements of “I hate coming,” “This has ruined my life,” “I don’t want to be here,” and “There is nothing good about this” were often communicated. Occasionally, Steven would mention that he wanted to stop dialysis. Steven displayed a low tolerance with frustration and became hostile toward unit staff regarding waiting time, unit procedures, and nurses providing care.

To Steven’s credit, he was aware of the difficulty he was experiencing in accepting his illness and he participated for a short time in the unit’s patient support group. Expressing his feelings to other people on dialysis seemed to be somewhat helpful, but it was not enough. He had difficulty hearing the positive outlooks that the other patients shared.

Steven would ask all members of the interdisciplinary team if his kidneys would ever regain full function. His behavior became more hostile as the possibility for regaining kidney function appeared less hopeful. Steven also reported a more frequent depressive mood. He described periods of fatigue, sleeplessness, and feelings of sadness and hopelessness.

Presenting Problem

From the beginning, Steven was not adherent to his dialysis treatment regimen of 3.5 hours, 3 times weekly. Reviewing his treatment history (see Table 1) between October 2009 and October 2010, Steven missed an average of two to four treatments per month. In January 2011, seven treatments were missed. Steven had been frequently advised by all members of the interdisciplinary team about the consequences of nonadherence.

Steven and I discussed possible barriers that might be interfering with his dialysis schedule, such as his work schedule, transportation, or his anxiety toward needles. Steven continued to feel well and did not exhibit any negative physical symptoms caused by missing treatments. This latter fact is very important in attempting to understand why Steven may have undervalued dialysis. The interdisciplinary team and I were unsure what to do next.

During the first year, Steven and I developed a strong therapeutic relationship. Our relationship consisted of mutual acceptance, respect, understanding, and trust. The therapeutic relationship is a fundamental component of mental health care. It has been found to predict therapeutic treatment adherence and outcomes. The therapeutic relationship

Table 1. *Number of Missed Dialysis Treatments*

Month	Number of Treatments Missed
October 2009	0
November 2009	3
December 2009	1
January 2010	1
February 2010	3
March 2010	2
April 2010	5
May 2010	2
June 2010	4
July 2010	4
August 2010	3
September 2010	3
October 2010	2
November 2010	3
December 2010	4
January 2011	7
February 2011	4
March 2011	3
April 2011	4
May 2011	0
June 2011	1
July 2011	1

is the means by which a therapist hopes to engage with and effectively make change. In many ways, the relationship is the precursor to the concept of the working alliance; the rapport that develops between the therapist and the patient makes it possible to work purposefully in therapy (Cooper & Lesser, 2005).

We discussed the possibility of working on improving Steven’s adjustment to dialysis. He was aware that he needed some assistance in learning to cope with living with ESRD and adjusting to the restrictive dialysis regimen.

Session 1: Assessment, Experiential Avoidance

This first session began with an assessment of the coping strategies Steven has utilized to manage his emotions toward dialysis. There was a brief discussion of the ACT model and an ACT handout, “Dissecting the Problem,” was completed (Appendix A). The purpose of the handout is to develop an understanding of the problematic issue presently facing the patient. The problem is dissected into four categories: entanglement with thoughts, life-draining actions, struggle with feelings, and avoiding challenging situations.

The handout revealed that living with ESRD makes Steven feel less than a whole person and not worthy of companionship. He displays feelings of distress, frustration, and confusion toward his illness and dialysis treatment. When experiencing these emotions, Steven chooses not to go to dialysis or reacts in a self-destructive manner (i.e., drinks excessive fluid, smokes marijuana, and takes his anger out on others).

We explored if Steven's behaviors were avoidance strategies he adopted to avoid his emotions toward dialysis and stay in control. In ACT, this behavior is defined as experiential avoidance, the act of avoiding unpleasant thoughts, emotions, and other private experiences (Flaxman, Blackledge, & Bond, 2011).

Included in the assessment was a discussion of Steven's dreams and hopes for the future. Steven would like to receive a kidney transplant, have a long-term committed relationship, and see his niece and nephew get married. We ended the session with a discussion that our future sessions together were an opportunity for Steven to learn and develop more positive ways of responding to his distress toward dialysis so that he can fulfill his dreams.

Sessions 2 and 3: Creative Helplessness, Contact with the Present Moment

In these two sessions, we continued to discuss Steven's attempts to avoid unpleasant feelings toward dialysis (experiential avoidance) and explored if his current strategies of missing treatment were effective. From an ACT perspective, this stage of treatment is called creative hopelessness, a method designed to help the patient see whether their attempts to fix the problem have worked, which opens up the possibility of attempting alternative, more positive solutions.

The use of the creative hopelessness process tends to vary in duration and frequency. People who have extensive histories of using experiential avoidance, as with Steven, may need more time to work through the creative hopelessness process.

Steven and I had a lengthy discussion about his anger, which has been a problem for him throughout his life. In this session, we talked about the anger regarding his dialysis treatments, specifically. We discussed his tendency to blame others for his feelings of anger. He explained that instant gratification is necessary for him. The consequences or the pain he inflicts on others at that moment is insignificant. Steven stated that his anger is the reason why he had been arrested for assault in the past.

Despite his many years of counseling, Steven continued to verbally release his anger at the cause of his annoyance. Steven became frustrated and displayed his anger when there were excessive wait times to receive his dialysis treatment, unit problems, or insensitive staff. Steven believed these situations were personal attacks toward him and his solution was to leave the dialysis unit. The creative helplessness intervention was applied as we

explored his avoidance behavior of leaving the dialysis unit and discussed if this solution could have long-term physical consequences.

This discussion was not an attempt to change his feelings of frustration and anger toward these situations, but an exercise to make him question what his solutions cost him in terms of emotional energy, health, and time. The ACT therapist does not attempt to change the client's distressing thoughts or attenuate their distressing emotions, but focuses instead on increased behavioral effectiveness (Flaxman, Blackledge, & Bond, 2011). In response to our discussion, Steven stated, "I live in the moment and do not project into the future."

Since Steven stated he lives in the moment, the ACT commitment and behavior change strategy of contact in the present moment was introduced. Contact in the present moment is the ability to monitor more closely whether one's behavior is effective or ineffective at the moment.

Steven was presented with the idea of allowing himself to recognize his thoughts and behaviors in stressful situations. His initial response was "Why would I want to make myself feel uncomfortable?" Steven stated the intense feelings he experiences toward his illness make him feel it is just another thing wrong with him.

Session 4: Creative Helplessness, Willingness, Cognitive Defusion

Steven was still missing dialysis treatments, but he stated he looked forward to our sessions and gave thought to our discussions. He acknowledged that he was beginning to understand how his solution of leaving dialysis when he is angry is ineffective. Steven noticed he sometimes has more difficulty breathing when he skips a treatment. However, change made Steven feel uncomfortable. He believed any attempt to change his attitude toward dialysis meant that the illness had taken control.

The next intervention was to increase Steven's awareness that his avoidance behaviors were not only problematic, but his negative thoughts were also holding him back from living a meaningful life.

Steven was asked to explore his values or goals in life. Steven stated, "Nothing in life is worthwhile; I have no goals." He believed living with ESRD will shorten his life expectancy, so having goals is pointless. This was an example of thoughts dominating his behavior. From an ACT perspective, this is called cognitive fusion. Cognitive fusion means being caught up in the thoughts and pictures in our heads so that we lose sight of the present moment or present experience (Harris, 2009). The concept of cognitive fusion may help explain why thoughts can become so threatening that individuals are prepared to engage in behavior that is detrimental to their well-being and quality of life to avoid them.

To introduce cognitive defusion, I challenged Steven on his

statement that “nothing in life was worthwhile.” Steven was asked the question, “What makes that thought really true?” He was asked to reflect on why he chooses to continue with dialysis if life was not worthwhile. Steven had no comment to my statements, but was deep in thought.

Cognitive diffusion is the process where an individual learns to observe one’s thoughts for what they truly mean, not what the mind says they mean (Eifert, Forsyth, Arch, Espejo, Keller, & Langer, 2009). In ACT, challenging irrational thoughts is an exercise for the patient to learn not to always trust the thoughts in their mind.

Session 5: Acceptance and Committed Action

In this session, Steven stated he gave thought to our previous discussion about what he values in life. Steven admitted he wished for a better quality of life but was unsure what it meant or how to obtain it. We reviewed his values, what he would like in the future, and what he would like to achieve.

Steven had a longstanding interest in receiving a kidney transplant, but had not made an attempt to start the evaluation process. He dreamed of receiving a kidney, which would relieve him from dialysis, but the fear of transplant failure, and the possibility of returning to dialysis, created a barrier to putting this plan into action. Steven believed that when life is going well, something bad always happens (cognitive fusion). We discussed how he had allowed the fear of a transplant failure to create a barrier to moving forward and having the opportunity to live a better life. A comparison was made to the avoidance behaviors he implements regarding his dialysis regimen to demonstrate that the procrastination of putting a plan into action is another avoidance behavior.

In order for Steven to show improvement in adherence to his dialysis prescription and commit to action toward fulfilling his life’s values, he would have to be willing to begin the process of acceptance. Acceptance is the willingness to experience distressing emotions that are encountered in the process of behaving consistently toward one’s values (Flaxman, Blackledge, & Bond, 2011). It is the opposite of control and avoidance and was a major treatment target. Acceptance and willingness is about the control of choices and actions, not about thoughts and feelings. It is not an outcome goal but a process goal (Blackledge & Hayes, 2001).

Exposure practice provides an important opportunity for patients to develop the willingness to experience distressing situations. They are encouraged to choose to be open to their experiences and to respond nondefensively. This intervention helps foster cognitive defusion so that cognition does not get in the way of life-directed goals.

In Steven’s case, the exposure exercise for him was to choose a different approach if the wait time for dialysis treatment was excessive. He was advised to be mindful of the emotions he feels, but to choose the solution that would be beneficial to his physical health. This introduced the

concept of choices. The requirement of having to receive hemodialysis treatment may not have been a choice for Steven if he wanted to live, but he had the choice to decide how he responded to the discomfort.

Session 6: Goal Establishment

As Steven arrived at this session, I immediately commented that his mood and affect appeared happier. Steven described how he had been receiving compliments from his family and coworkers regarding the same, but could not understand why. He did not believe he was acting any differently, but he appeared pleased that others had noticed a change.

During the week, Steven had given some thought to what his future goals might be. In addition to a kidney transplant, he determined that he wanted to work toward going on vacation, reestablishing his driver’s license, obtaining a car, and renting an apartment rather than living in a room.

Steven stated that he realized that he couldn’t fight this illness any longer. It was costing him too much in the way of emotional energy. It was explained that his feelings were a form of acceptance. Steven thought that acceptance meant he had to like receiving dialysis. It was clarified that acceptance is not changing or reducing feelings but allowing them to be there without a struggle. Acceptance is the willingness to stay with discomfort while also actively and intentionally choosing to engage in life-directed behavior (Eifert, Forsyth, Arch, Espejo, Keller, & Langer, 2009).

Steven discussed a conflict that occurred between himself and the dialysis unit nurse regarding his target weight during a previous dialysis treatment. He stated he became angry and was aware that he may not have handled himself in an appropriate manner. This was the first time Steven was insightful and assumed some responsibility for his behavior. It appeared from Steven’s behavior that his ability to experience distressing emotions toward dialysis had improved. In addition, he was able to recognize his behavior in the moment (contact with the present moment).

Session 7: Commitment

By this session, Steven had been 100% compliant with his dialysis treatment for that month. Steven stated, “I am trying to do the best I can and do what I need to do” and “I look at the bigger picture.” He stated his desire to keep his body in good shape. He felt better physically and used the kidney transplant goal as motivation. Positive changes were demonstrated by the change in Steven’s behavior (not missing treatments) and his positive thoughts (acknowledging he is doing the best he can). It appeared his focus had shifted to future goals rather than concentrating on the distressing emotions toward dialysis.

The remaining sessions focused on committing to a plan of action to move Steven toward reaching his selected goals. Commitment refers to the behaviors or actions taken to fulfill one’s life-driven values or goals (Flaxman, Blackledge, & Bond, 2011).

Sessions 8–15: Committed Action, Maintenance

The last 8 sessions of working with Steven focused on obtaining his stated life goals. Steven had completed various tasks: he made arrangements for a kidney transplant evaluation and began looking for an apartment. Steven took more of an interest in his physical well-being. He made several telephone calls to his physician and scheduled the appointments necessary to address his medical issues.

Steven stated that he still became angry while in dialysis but he had chosen not to react to these unpleasant situations. In ACT terms, he was allowing himself to experience his frustration and anger, but chose another solution.

There were times during our sessions that Steven experienced higher levels of frustration due to medical complications or environmental stressors. Discussions were focused on Steven becoming aware of his automatic negative thoughts and emotional reactions to these stressful situations. These setbacks were potential causes for missing dialysis treatments and interference with his plans of working toward his future goals.

DISCUSSION

In this case study, the use of ACT was successful in improving treatment adherence with one person's prescribed hemodialysis regimen and in improving quality-of-life scores. Fifteen sessions were held for approximately 45 minutes to 1 hour over a 5-month period. Sessions were held during dialysis treatment or in a private office prior to treatment at weekly intervals, except for weeks in which there were schedule conflicts.

Desired therapeutic outcomes were: 1) increased treatment adherence to Steven's prescribed dialysis regimen and 2) an increase in Steven's quality of life. Increase in adherence was measured by a decrease in the number of dialysis treatments that were missed during a month. Over the 5-month period in which these therapeutic sessions were held, treatment adherence improved: 100% compliance occurred in 1 month and only one treatment was missed in 2 consecutive months (Table 1). The possibility exists that 100% treatment adherence will be difficult to maintain. Work or family schedules and the inability of the dialysis unit to provide schedule flexibility are variables that may affect adherence.

To measure an increase in quality of life, the Kidney

Disease Quality of Life (KDQOL)-36 questionnaire was administered. The KDQOL-36 is a self-reported quality of life measure for people with ESRD. It is a 36-item survey with 5 subscales: physical functioning, mental functioning, burden of kidney disease, symptoms and problems, and effects of kidney disease on daily life. Scoring algorithms are used to calculate scores from 0 to 100, with 100 representing the highest quality of life. According to The Dialysis Outcomes and Practice Patterns Study (Mapes et al., 2003), low health-related quality of life scores were associated with a higher risk of death and hospitalization. As physical and mental functioning scores decreased, the risks of death and hospitalization rose significantly. Scores are compared to means and standard deviations in terms of age and gender.

The KDQOL-36 was administered to Steven at the first and last sessions. The most significant change was shown in Steven's mental function score (Table 2). His score increased 22.05, from 30.48 in Session 1 to 52.53 in Session 15. Steven's score was higher than the mean score of 45.41. There was a slight decrease in scores for how the effects and burden of kidney disease have affected Steven's quality of life. The effects of the disease subscale rose 9.37, from 53.13 to 62.50; the burden of disease subscale rose from 31.25 to 37.50, a change of 6.25.

Other positive outcomes that can be noted were Steven's willingness to let go of the struggle to control his illness (acceptance). This was demonstrated by the increase in his treatment adherence while still experiencing the distressful emotions toward dialysis. Furthermore, there was a shift in Steven's focus from his intense feelings toward dialysis to contemplating and working on future goals. Steven completed various tasks that were part of his committed action plan and actively made choices to address distressful situations in the dialysis unit in a different manner.

Before beginning ACT therapy, Steven's thoughts and behaviors were rigid and inflexible. By Session 15, it appeared Steven was willing to think about his distressful situation and conduct his behavior more appropriately. In ACT terms, Steven became psychologically flexible, resulting in the ability to live a more meaningful life even in the presence of undesirable thoughts and emotions.

Table 2. KDQOL-36 Scores

Date	Symptom/ Problem List	Effects of Kidney Disease	Burden of Kidney Disease	SF-12 Physical Composite	SF-12 Mental Composite
03/07/11	70.83	53.13	31.25	34.45	30.48
07/28/11	66.67	62.50	37.50	33.15	52.53
Mean	71.38	38.50	38.65	36.89	45.41
Change	-4.16	9.37	6.25	-1.30	22.05

This case study demonstrated the use of only a few of the many ACT techniques and tools (Table 3). Experiential avoidance was used to assess Steven's problematic avoidance behaviors. Creative helplessness was the process used to create awareness of Steven's problematic behaviors and unsuccessful outcomes. Mindfulness was used to bring about awareness of Steven's emotions and behaviors in the present moment (contact with present moment). Challenging irrational thoughts was used to create confusion in the validity of Steven's thoughts (cognitive defusion).

An exposure exercise was suggested to assess Steven's ability to handle distressing emotions without reacting to them, and to select alternative, more positive solutions to his distressing situation. Life goals and values were discussed to shift Steven's focus away from his illness. The discussion and planning of tasks were the interventions used to create the action plan to fulfill Steven's chosen values or goals.

This case study has some limitations. ACT was applied only to one patient and this is the author's first attempt with this therapeutic intervention. Steven's avoidance behavior was the most difficult issue to address. Therefore, the process of creative helplessness was used in more than one session. In addition, more emphasis could have been placed on the self-as-context process, which comprises the self-defining characteristics that are developed by what one is presently thinking, feeling, and remembering. Steven defined himself as not being worthy of companionship and being less than a whole person. This was not addressed in the sessions. In addition, ACT has many other tools and techniques that can be used as interventions. This case study lacks the demonstration of all these tools, such as various handouts, metaphors, and paradox.

An ESRD diagnosis and the restrictive dialysis regimen it requires create the possibility of unexpected psychosocial or medical complications that may interfere with the

patient's focus on working toward life goals. An important recurrent task for social workers is to assist patients in coping with these barriers and to recommit to their values and goals.

One of the target goals of the ACT theory is working toward a life driven by fulfilling one's values. Not all cultures place value on living toward the individual's life-driven goals. In some cultures, values and goals are developed in relation to family rather than the individual. Furthermore, ACT's theoretical framework is grounded in language and cognition. Different linguistic cultures have specific language for certain ideas and concepts, which produces differentiated ways of thinking.

Steven's depressive symptoms before our sessions are reflected in the low mental function subscale in the KDQOL-36 survey. Further research could explore the use of ACT therapy for people with ESRD who display depressive symptoms or low KDQOL-36 scores. There may be practical advantages to acceptance and life-valued actions as a method of dealing with the psychological challenges of this chronic illness.

This appears to be the first study in which ACT was attempted with a person with ESRD. It outlines the usefulness of the ACT model not only for adherence to dialysis regimen and quality of life, but as a possibility to address depression, the difficulties patients experience with excessive dialysis wait times, and other unit problems. It is hoped that this case study will spur additional research on the effectiveness of ACT regarding the adjustment to living with ESRD.

Table 3. *Treatments per Session*

Session Number	ACT Core Therapeutic Process	ACT Intervention
1	assessment of avoidance strategies	experiential avoidance
2–3	experiential avoidance contact with present moment	creative helplessness introducing mindfulness
4	experiential avoidance cognitive defusion	creative helplessness challenging thoughts
5	cognitive defusion acceptance	challenging thoughts exposure exercise
6	values acceptance	life goals willingness/choices
7	acceptance	willingness/choices
8–15	committed action	completing tasks

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APPENDIX A***Dissecting the Problem***

This form is to help gather information about the nature of the main challenge, issue, or problem facing you. First, please summarize, in one or two sentences, what the main issue or problem is:

Second, please describe, in one or two sentences, how it affects your life, and what it stops you from doing or being:

Regardless of what your problem is—whether it is a physical illness, a difficult relationship, a work situation, a financial crisis, a performance issue, the loss of a loved one, a severe injury, or a clinical disorder such as depression—when we dissect the problem, we usually find four major elements that contribute significantly to the issue. These are represented in the boxes below. Please write as much as you can in each box, about the thoughts, feelings and actions that contribute to or worsen the challenge, problem or issue facing you.

Entanglement with Thoughts:

What memories, worries, fears, self-criticisms, or other unhelpful thoughts do you dwell on, or get “caught up” in, related to this issue? What thoughts do you allow to hold you back or push you around or bring you down?

Life-draining Actions:

What are you currently doing that makes your life worse in the long term: keeps you stuck; wastes your time or money; drains your energy; restricts your life; impacts negatively on your health, work, or relationships; maintains or worsens the problems you are dealing with?