

Chapter 9

Future-Oriented Treatments for Suicide: An Overview of Three Modern Approaches

Elizabeth Yu, Jennifer Cheavens, Jennice Vilhauer, and Wessel van Beek

Suicide leads to over 800,000 deaths a year worldwide (World Health Organization, 2014). As an important public health concern, it is not surprising that researchers have sought to identify constructs, including protective factors, which are related to suicide risk. Future-oriented cognitions, as either potential risk or protective factors for suicide, may be important targets for interventions. Indeed, the role of future thinking has long played a role in theories of depression and suicide. Negative views of the future, lack of control of future events, negative expectancies, helplessness, and hopelessness have all been theorized to be positively related to depression and suicide risk (Abramson, Metalsky, & Alloy, 1989; Beck, 1972; Beck, Steer, Kovacs, & Garrison, 1985; Seligman, 1975). More recently, greater attention has been paid to the role of positive future cognitions in relation to suicide. Findings have indicated that positive future thinking, such as optimism, hope, and future orientation, may serve as important protective factors against suicide and are inversely related to suicide risk (e.g., Chang et al., 2017; Chang, Yu, Kahle, Jeglic, & Hirsch, 2013a; Cheavens, Cukrowicz, Hansen, & Mitchell, 2016; Hirsch, Conner, & Duberstein, 2007; Hirsch & Kelliher Rabon, 2015; Hirsch, Nsamenang, Chang, & Kaslow, 2014; Huffman et al., 2016).

E. Yu (✉)
University of Michigan, Ann Arbor, MI, USA
E-mail: aunying@umich.edu

J. Cheavens
The Ohio State University, Columbus, OH, USA

J. Vilhauer
Emory University, Atlanta, GA, USA

W. van Beek
Symfona Groep, Hilversum, Netherlands

© Springer Nature Switzerland AG 2018
K. Hirsch et al. (eds.), *A Positive Psychological Approach to Suicide*,
Advances in Mental Health and Addiction,
https://doi.org/10.1007/978-3-030-03225-8_9

Therapy for specific usage in addressing suicidality and its psychopathological correlates, including depression.

Future-Directed Therapy for Depression

Theoretical Background

The role of future thinking has long played a role in theories of depression. Beck's theory of the cognitive triad of depression posited that people with depression have a negative view of the future (Beck, 1972). Seligman (1975) believed depression resulted when people felt they did not have control over the negative events in their future; and, Abramson hypothesized that depression was the result of a combined negative and helpless expectancy (Abramson et al., 1989). These theories were unified by the view that depression was the result of negative expectations. This view was challenged in the mid-1990s, when Andrew MacLeod at Royal Holloway University delineated positive and negative thinking about the future as orthogonal constructs and not polarities of the same dimension. He demonstrated that people with depression did not think more negatively about the future than people without depression but, rather, they produced fewer positive expectations. MacLeod and colleagues concluded that this is not due to an inability of people with depression to anticipate pleasure in general but, rather, a reduced ability to generate positive expectancies about the future (MacLeod & Salaminiou, 2001). Having been replicated many times, this finding has emerged as one of the most robust cognitive indicators in people with depression (e.g., Bjarehed, Sarkohl, & Andersson, 2010; MacLeod & Byrne, 1996; MacLeod & Copley, 1995; MacLeod & Salaminiou, 2001; MacLeod, Tata, Kentish, & Jacobsen, 1997b; Miranda & Mennin, 2007; Stöber, 2000). The revelation that people with depression think less positively about the future maps to biological models that have also emerged over the past several decades, implicating an impairment in reward processing as a marker of depression. Specifically, fMRI imaging of the brain has repeatedly demonstrated that people with depression appear to have reduced functioning in the striatal system during the anticipatory processing of rewards (e.g., Beck et al., 2009; Berman et al., 2009; Juckel et al., 2006; Schlagenhauf et al., 2008, 2009; Stoy et al., 2012; Ströhle et al., 2008; Wrase et al., 2007). In other words, people with depression have an impaired ability to view future events as rewarding and, thus, have less positive expectations about the future.

The ability to engage in behavior directed at positive future outcomes is viewed as an acquired skill (Reading, 2004). Research shows that people with depression tend to have fewer skills that are critical components of future thinking, such as goal-setting, planning, and problem solving, and that those who are skillful in these areas demonstrate a greater sense of well-being (Diener & Emmons, 1984; Emmons, 1992; MacLeod, 2012; MacLeod, Coates, & Heatherton, 2008; Schmuck & Sheldon,

2001). Studies with clinical and non-clinical samples have also shown that teaching goal-setting and planning skills can increase positive future thinking and self-reported subjective well-being and can reduce negative affect and hopelessness (Cheavens et al., 2006; Lyubomirsky, 2008; MacLeod et al., 2004, 2008).

The theoretical premise behind Future-Directed Therapy (FDT) is based on Humanistic models of behavior and has three primary concepts: (1) the desire to thrive is the primary drive of all human beings because it promotes the evolutionary process, (2) thought and behavior are limited resources that humans utilize to promote their thriving, and (3) our emotions provide feedback on our perceived state of thriving.

The concept of thriving is best represented as a part of a continuum that ranges from survival to thriving, similar to that described by Maslow in his Hierarchy of Needs (Maslow, 1999). What humans perceive to be a state of thriving is hypothesized to be subjective and relative. At its most basic level, it begins with physical survival and can eventually progress across the continuum to the development of complex psychological processes, such as self-actualization and self-transcendence. In FDT, increases in thriving are believed to be achieved by actions taken that are born from a desire to close the gap between where one presently is and where one wants to be in the future. In FDT, this desire is viewed as a fundamental drive referred to as the "need to want." Everything that is wanted is in the future. It is the "need to want" that promotes thriving and the continued evolution of the human experience. No matter how much anyone has, there is always the desire for continuous movement forward toward an increased state of thriving. No one ever reaches a state where the desire to thrive stops. Thought and behavior, from the FDT perspective, are the most powerful resources that humans have, to promote their own thriving. However, due to time constraints (i.e., you can only think and do a certain number of things concurrently); thought and behavior are limited resources. In FDT, the premise is that the more resources that are spent on activities that promote thriving, the better one will feel.

In FDT, it is hypothesized that when people feel they have the power to thrive, by creating a desired future state and obtaining what is wanted, they feel a sense of well-being that leads to emotions such as hope and optimism. When the ability to move forward into a desired future state is hindered in some way, however, the perception is that thriving is being inhibited, and people experience psychological distress, which, if not corrected, can evolve into pathological disorders.

Several unique cognitive models were developed to conceptualize the anticipatory process of human behavior and the cognitive process of reward achievement. In the FDT Anticipatory Cognitive Model of Human Experience (Fig. 9.1), a distinction is made between anticipatory beliefs and the present or past beliefs on which anticipatory assessments are based. It also highlights the anticipatory response process of choice calculation, in which people decide what actions they will take based on what they anticipate will happen in any given situation. Unlike traditional cognitive therapy, in FDT, the focus is on the anticipatory part of the human experience, in understanding both the patient's problem and where primary interventions occur. If a patient is aware of his/her faulty thoughts about a future situation, then they can be changed before the situation occurs and, potentially, a different outcome can be created.

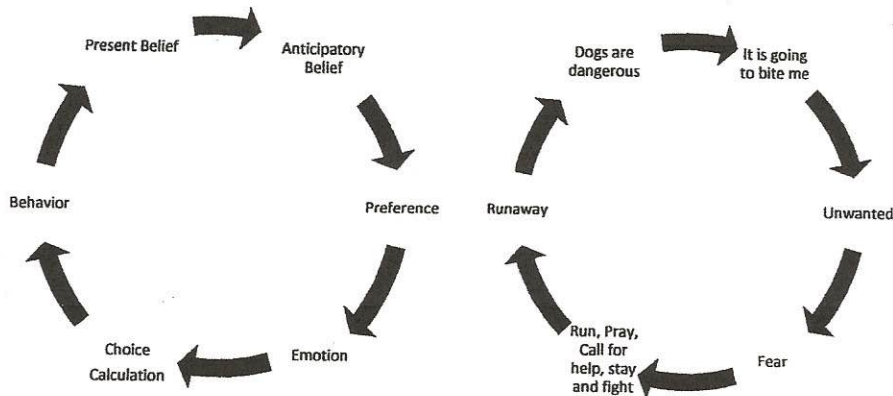


Fig. 9.1 FDT anticipatory cognitive model of human experience

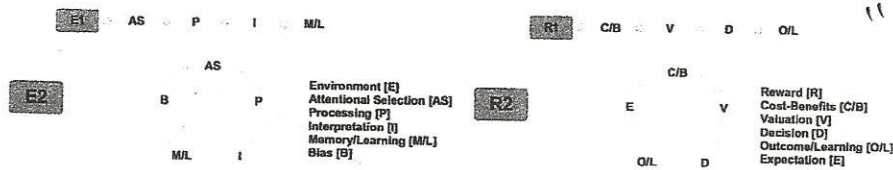


Fig. 9.2 FDT cognitive bias model of reward processing

As faulty reward processing is an identified component of depression, a primary goal of FDT is to help patients identify impaired cognitions related to goal or reward-related behavior. The FDT Cognitive Bias Model of Reward Processing (Fig. 9.2), which represents the cognitive process of reward achievement, is adapted from the combined cognitive biases model (CCBM) of depression (Everaert, Duyck, & Koster, 2014; Everaert, Tierens, Uzieblo, & Koster, 2013). Research has supported the CCBM, showing that diminished attentional control plays a significant role in the maintenance of negative affect, and that people with depression and dysphoria have a negative attentional selection bias and difficulty disengaging from a negative stimulus once they have selected it (i.e., they spend longer processing it; Everaert et al., 2014; De Raedt & Koster, 2010). This model maps to research on reward processing, which shows that during the attentional selection phase, those with dysphoria focus more on the risks and cost associated with the reward. Unlike people without depression, who tend to be biased toward focusing their attention on rewarding and/or positive elements in their environment, people with dysphoria do not develop this positive attentional bias (Brailean, Koster, Hoorelbeke, & De Raedt, 2014). This influences the valuation process in a negative way (e.g., overestimate costs) and can lead to decisions to avoid taking action or exerting effort, which increases the likelihood of a negative outcome (e.g., does not get reward). As negative outcomes are learned, an expectation develops through which attainment of future same or similar potential rewards are processed, and which then guides attention selection toward risks and costs.

Treadway and colleagues have suggested that anergic and anhedonic behavioral patterns commonly observed in the course of a major depressive episode (MDE) may result from a core deficit in cost/benefit decision-making, such that individuals fail to engage in rewarding behaviors because they either overestimate the costs of obtaining rewards, under-estimate the anticipated benefits, or simply fail to integrate cost/benefit information in an optimal manner (Treadway, Bossaller, Shelton, & Zald, 2012; Treadway & Zald, 2011). This model uniquely allows the clinician to conceptualize the cost/benefit decision-making process of the patient involved in reward-related behavior and to develop interventions accordingly. For example, when talking about whether to go to a social event (a potentially rewarding future experience), someone with depression may focus on all the things that would go wrong, such as the anxiety of not knowing what to say and appearing awkward to others. The more attention the individual gives to the possibility of a negative experience, the greater the magnitude of the anticipatory anxiety, which is perceived to be a high emotional cost. This focus on the emotional cost may cause the individual to decide that the cost exceeds the potential of the reward and may, ultimately, affect the individual's decision to attend. By being able to conceptualize a patient's emotional experience of future events as a function of attention to cost versus reward, a clinician can guide the patient's attention away from costs by instead focusing their attention on reward using structured exercises such as positive process and outcome visualizations, and by generating solution-oriented tasks that will help an individual influence a situation to achieve a desired outcome, as opposed to exerting mental resources expecting it to turn out badly.

The FDT Cognitive Bias model is consistent with decades of research on goal achievement and motivation, which has demonstrated that reward effort (i.e., behavioral action) is mediated by the cognitive appraisals of reward anticipation, which has two primary components: expectancy regarding the possible outcomes of behaviors or performance (i.e., expectation), and perception of a goal or reward value (i.e., valuation; Berridge, 2004; Clithero, Reeck, Carter, Smith, & Huettel, 2011; Salamone, Correa, Farrar, Nunes, & Pardo, 2009; Sun, Vancouver, & Weinhardt, 2014). Demeyer and De Raedt (2014) recently demonstrated that training dysphoric individuals to have a more expansive future time perspective results in those individuals allocating less of their attentional resources to negative stimulus. They also showed that dysphoric individuals with an enhanced attentional bias for reward have a higher expectation that they can control reward outcomes.

These core models are incorporated into what is referred to as the 4-A achievement model (i.e., Anticipate, Activate, Assess, Act), to conceptualize the relations between valuation, expectation, knowledge, attention, and reward effort, and to promote an understanding of what is preventing action toward goals and where to intervene. In the *anticipation* phase, the individual identifies what they want and how much they want to achieve the goal (valuation), what steps are necessary to achieve the goal and what the obstacles are (knowledge), and what their current beliefs are about their ability to achieve their goal (expectations). Then, the patient *activates* attention to benefits (e.g., journal exercises, worksheets) to increase goal value and attention to obstacles, and to generate implementation plans to overcome perceived

barriers, which has been shown to facilitate action and increase the expectation of success (Oettingen, 2012). In the third phase, the patient *assesses* the planned steps toward their goal, along with their plan to overcome obstacles, and they also determine whether they perceive the *action* necessary to be worth the effort and, if so, they engage in planned actions.

Another unique component of FDT is that it uses affect-biased attention as a direct emotion regulation strategy (Todd, Cunningham, Anderson, & Thompson, 2012), by training patients to self-monitor attentional process and to redirect attention to rewards. Anhedonia, for instance, has been linked to difficulty with sustaining engagement in structures involved in positive affect and reward (i.e., result of impaired attentional control; Heller et al., 2009), and cognitive control over reward processing impacts not only the expectation period but also the reward signals in the outcome period (Staudinger, Erk, Abler, & Walter, 2009). People with depression tend to have difficulty redirecting their attention away from negative stimuli, relative to positive stimuli (De Raedt & Koster, 2010). Recent work has demonstrated that attentional biases may be retrained with instruction, and depressed patients can learn to develop a positive attentional bias that not only improves mood but reduces risk of relapse (Browning, Holmes, & Harmer, 2010; Browning, Holmes, Charles, Cowen, and Hamer, 2012).

FDT is distinct from CBT, in that it does not focus on changing irrational thinking but, rather, focuses on anticipatory thoughts and building effective thought patterns that will maximize likelihood of effort toward achieving a desired future state. The FDT approach is also distinct from Behavioral Activation (BA), which does not incorporate training on cognitive components of expectation and motivation that research has indicated as precursors to decision-making and facilitation of successful reward effort. Finally, FDT is also distinct from these treatments, in that it considers attentional and perceptual processing to be a means of understanding cognitive assessments made by an individual and acknowledges their potential use as a tool in change and emotion regulation processes.

Application of Future-Directed Therapy

Future-Directed Therapy (FDT) was developed as an evolved form of cognitive therapy to map more closely onto the cognitive and biological knowledge that has emerged regarding future thinking and depression. The “future” in Future-Directed Therapy is not necessarily far off in time; it can refer to any point in time beyond the present moment, near or far. Rather, FDT is about understanding that because we can only move forward, most of our thinking and behavior is anticipatory or future oriented. We constantly speculate about what will happen, whether it is in the very next moment, tomorrow, or 5 years from now, and that speculation has a huge impact on how we process information, how we feel about different situations and, ultimately, how we create our lives.

FDT is designed as a full clinical intervention intended to reduce symptoms of depression and improve well-being by promoting a paradigm shift from dwelling on the past, or highlighting one's limitations in the present, toward creating more positive expectancies about the future, by developing and employing a comprehensive and well-defined set of skills. To address the social isolation associated with depression, as well as to employ a format that was conducive to teaching the skill-based nature of material, FDT was originally conceptualized as a group-based intervention, taught in twice-weekly, 90-min sessions, over a 10-week period, in a classroom style setting.

The FDT intervention was developed over a 5-year period, utilizing workshops and focus groups with patients in an outpatient clinical setting at a large urban hospital center. Patients with depression were involved in all aspects of the development, providing feedback on the content and the utility of the material. Two non-randomized clinical studies have been completed using FDT. The first study involved comparing 16 patients in an FDT group with 17 patients treated simultaneously in traditional Cognitive Behavioral Therapy groups. All patients had a confirmed diagnosis of DSM-IV Major Depressive Disorder and were compared pre- and post-treatment (10 weeks) on The Quick Inventory of Depressive Symptoms (QIDS), the Beck Anxiety Inventory (BAI), and the Quality-of-Life Enjoyment and Satisfaction Questionnaire (QLES-Q) short form. Patients treated with FDT demonstrated significant improvements from baseline to post-treatment, with a reduction of symptoms of depression ($p = .001$) and anxiety ($p = .021$), and reported improvement in quality of life ($p = .035$). Additionally, they also reported high satisfaction with the therapy. Both CBT and FDT were found to be effective at treating depression; compared to the CBT group, the FDT group showed greater improvements in depressive symptoms ($p = .049$; Vilhauer et al., 2012).

In a follow-up study that again compared FDT to group-based CBT, the Beck Hopelessness Scale (BHS) was added to assess positive and negative anticipation. In 1 year, 42 patients completed a 10-week, 20-session group therapy program (FDT [$n = 22$], and CBT [$n = 20$]). The controlled factors included the number of sessions (2/week \times 10 weeks /condition), the amount of training and supervision provided to the clinicians on each treatment, and adherence to protocols, which were assessed through periodic observation through a one-way mirror. Key findings were: from baseline to post-treatment showed that FDT improved depression ($p = .001$), positive anticipation (BHS-subfactor; $p = .001$), and quality of life ($p = .001$). In a between-group comparison, consistent with our pilot study, both treatments were effective at improving depression; however, there was suggestive evidence at 10 weeks that FDT improved depression ($p = .011$), positive anticipation ($p = .049$), and quality of life better than the CBT group ($p = .051$; Vilhauer et al., 2013). FDT was significantly better than CBT at reducing anhedonia (pre-post on item 13 of QIDS: $p = .01$). Regression analysis indicated that change in positive anticipation (BHS) predicted change in anhedonia ($p = .038$) and overall depression ($p = .008$) in the FDT group, but not the CBT control group. Even with small samples sizes and non-randomized assignment to condition, these findings

suggest that FDT is uniquely changing depressive symptoms via alteration of cognitions regarding positive expectations.

Can FDT Help Suicidal Patients?

FDT has the potential to help individuals decrease suicidal thinking by reducing hopelessness through the process of helping them to develop a more positive view of the future. Hopelessness is the best consistent predictor of the risk for suicidal behavior (O'Connor, Armitage, & Gray, 2006) and the cornerstone of many theories of suicidal thinking (e.g., Beck, Brown, & Steer, 1989; Beck, Kovacs, & Weissman, 1975). Hopelessness was originally posited, by Beck, to be a cognitive/motivational state characterized by negative expectancies, and a core feature of depression (e.g., Brown & Beck, 1989; Clark, Beck, & Brown, 1989; Young et al., 1996) that plays a significant role in mediating the relation between depressive syndromes and suicidal behavior (e.g., Beck et al., 1975; Fawcett et al., 1990; Wetzel, Margulies, Davis, & Karam, 1980). However, more recent research has not supported this definition. While hopelessness is believed to be a multi-faceted construct, several researchers have found that lack of positive future thinking plays a more important role in hopelessness than the presence of negative future thinking (MacLeod et al., 2005; MacLeod, Pankhania, Lee, & Mitchel, 1997a; MacLeod, Rose, & Williams, 1993; O'Connor & Cassidy, 2007).

Williams (2001) "Cry of Pain" model of suicidality posited that future thinking in suicide is an important variable. This model describes suicidal ideation as a reaction to a stressful situation that has three components: perception of defeat, no escape, and no rescue (i.e., feeling trapped, no positive future). Judgment about these three components are affected by information processing deficits (e.g., positive future thinking) and individual differences factors. The Cry of Pain model moves beyond other models that focused on escape to incorporate the states of entrapment and defeat (Gilbert & Allan, 1998). Resulting from impaired positive future thinking, when an individual with suicidal thoughts envisions the future, they can see no end to the entrapment, and hopelessness ensues. In this conceptualization of suicidality, it is the interaction between the desire to escape from a situation characterized by feelings of defeat and rejection and not having the internal or external resources to escape, which is pertinent to suicide risk. In the Cry of Pain model, the presence of rescue factors (e.g., positive future thinking) moderate or attenuate the deleterious effect of the perception of inescapability on one's wish to die. This moderating pathway has been supported by data from a clinical case control study (O'Connor, 2003). According to O'Connor et al. (2007), a higher level of positive future thinking reduces the sense of entrapment, resulting in the individual believing that he/she has more to look forward to and, consequently, greater reasons for living and better mental health outcomes.

MacLeod et al. (1998) have shown that a deficit of positive anticipation about the future increases hopelessness and differentiates between parasuicidal and non-

parasuicidal groups. Parasuicidal patients show an absence of anticipation of pleasurable future events, but not an increased anticipation of unpleasant events (MacLeod et al., 1993). Research among older individuals by Hirsch et al. (2006) reveals that positive future orientation is associated with less suicidal ideation. These authors suggest there is a need to develop cognitive-based treatments that focus specifically on enhancing future orientation. O'Connor and Cassidy (2007) found that in a group of repeated self-harmers that were 2 months post-suicide attempt, those with high levels of positive future thinking showed the best outcome on hopelessness and suicidal thinking. These authors believe that interventions which attempt to modify positive future thinking are warranted for suicide prevention. In addition to its potential value in suicide prevention, interventions focusing on increasing positive future cognitions can also be implemented as an add-on to other treatments.

Future-Oriented Group Training for Suicidal Patients

Theoretical Foundation/Background Information and Model

When suicidal patients enter treatment, they are confronted with a commonly held misconception among health care workers that suicidal thinking and behavior will vanish when underlying psychiatric problems are treated. However, there are good reasons to believe this is not the case. Suicidal thinking fluctuates over time (De Leo, Cerin, Spathonis, & Burgis, 2005; Gunnell, Harbord, Singleton, Jenkins, & Lewis, 2004) and is likely to reoccur in most depressed individuals in the future (Williams, Crane, Barnhofer, Van der Does, & Segal, 2006). For example, in a study among formerly suicidal patients, Williams, Barnhofer, Crane, and Beck (2005) showed that problem-solving abilities and autobiographical memory, which are commonly associated with suicidal thinking and behavior, deteriorate when the patient's mood lowers once again. This supports the notion that suicidality appears to become a syndrome, irrespective of underlying psychiatric morbidity (Ahrens & Linden, 1996). Autobiographical memories are important building blocks in the cognitive construction of hope, or positive future thinking.

There is a shortage of well-described, evidence-based treatment methods for suicidal behavior and suicidal ideation. A few randomized clinical trials focusing on self-harm and suicidal behavior have been published, such as MACT (Manual Assisted Cognitive-Behavior Therapy; Davidson, Brown, James, Kirk, & Richardson, 2014; Evans et al., 1999) and Cognitive Therapy and Cognitive-Behavioral therapies (Brown et al., 2005; Forkmann, Brakemeier, Teismann, Schramm, & Michalak, 2016; Rudd et al., 2015). There are also studies on suicidality as a component of treatment programs for borderline patients, such as Dialectical Behavioral Therapy (DBT; Andreasson et al., 2016; Linehan, 1993; Linehan et al., 2015; Verheul et al., 2001), Schema-Focused Therapy (Giesen-Bloo et al., 2006).