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Acute Cancer Cognitive Therapy

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Abstract

The utility of cognitive therapy (CT) for ambulatory cancer patients is clear but the acute cancer setting significantly shapes the therapeutic interaction, parameters, and delivery of CT. In this article, we describe how to apply CT to acute cancer settings, focusing on how this approach differs from traditionally taught, ambulatory CT. We highlight the importance of a tailored history and formulation, how the cognitive model is applied within an acute cancer context to promote coping and adaptation. Reframing must consider the "grain of truth" to many so-called distorted cognitions, such as "cancer means death." Fear of recurrence is an example of a common reframing challenge. Another is the "tyranny of positive thinking." Here there is avoidance of considering negative outcomes such as death; patients are told to "think positive," leaving them alone at a time of life-threatening crisis. Instead, acute cancer CT utilizes a stance of realistic optimism. Empathy plays a vital role in turning off the bracing reaction to threat and facilitating problem-solving. Successfully combining CT with medications is integral to this model. We also discuss how CT can be applied to discussing prognosis, the desire for hastened death and suicidality, as well as death and dying in general. Because of the ubiquitous nature of cancer, most cognitive therapists will encounter patients with cancer in their practices. Acute cancer CT is a skill set that should be widely taught to cognitive therapists and flagged as a priority for academic programs and professional organizations.

Keywords

Acute Cancer Cognitive therapy (CT); acute cancer setting; formulation; empathy; coping; reframing; grain of truth; problem solving; prognosis; combined CT and pharmacotherapy; suicide; death and dying

About 1,638,290 new cancer cases are expected to be diagnosed in the United States in 2013 and 580,350 cancer deaths are projected (Siegel, Naishadham, & Jemal, 2013). About one-third or more of these patients have significant levels of psychological distress (Mitchell, 2007; Roth et al., 1998). A growing body of evidence shows that cognitive therapy (CT) is efficacious in treating distress among cancer patients receiving care in outpatient mental health settings (Moorey, Greer, & Gill, 2002; Tatrow & Montgomery, 2006; White, 2001),

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yet even skilled therapists are challenged when providing CT in unpredictable acute cancer settings.

The Acute Cancer Setting

Characteristics of the acute cancer setting and how it differs from regular outpatient psycho-oncology are detailed in Table 1. Most prior CT research has been protocol driven, where participants are stable enough to attend CT on a weekly basis, having completed the bulk of their surgeries, radiation and anticancer treatments. The acute cancer setting, by contrast, is an environment of instability and uncertainty.

CT in acute cancer settings is characterized by a coping crisis, often described with warlike catastrophe as a “battle” or “fight” that puts the rest of life on hold. The life-threatening urgency of a cancer diagnosis or relapse and the unpredictability of cancer treatments (and their side effects) adds to the atmosphere of crisis. Similarly, making sense of prognosis is a defining element of acute cancer settings, but patients and families often find this confusing and, as a result, both short- and long-term planning can be difficult.

The acute cancer setting is a sharp turning point that requires conscription of resources and reorganization of priorities. It involves evolving relationships with numerous skilled, multidisciplinary providers. Whereas previously, a person may have had a predictable work and family routine, now the calendar is subsumed by daily hospital and clinic visits, imaging and blood tests, surgeries, radiation, and other cancer treatments.

Acute cancer CT is integrated into this continuum of care, in contrast to the more familiar and private, traditional psychotherapy format. At other times in life, a patient might set aside 60 minutes for weekly CT, even at a time of crisis, but in acute cancer settings, this is not always possible. In addition to competing cancer treatment demands, a patient may have to abruptly end a CT session if feeling unwell, answer the phone midsession to arrange the next day’s radiation simulation, or, while speaking with the psychotherapist, have intravenous chemotherapy, blood transfusions, or antibiotics administered by the nurse.

In acute cancer settings, medicalization of the patient changes the balance of power in the psychotherapeutic relationship, highlighting the patient’s vulnerability and fragility. Patients are medicalized by various factors, including:

- Visible intravenous ports, surgical drains, urine and feces bags, and other medical devices such as cardiac monitors.
- Hospital garb, masks, and gloves.
- The culture of infection prevention with frequent hand sterilization, masks, and avoidance of crowds, public transportation, and children.
- Devices for ambulating, such as wheelchairs, walkers, canes, or the supportive arm of a family member or nurse.
- Physical changes such as scars, staples, loss of hair, cachexia, muscle atrophy, or a fragile, tentative, posture.

Privacy is relative in a hospital or cancer clinic, as patients often have little control over how their bodies are exposed, touched, or pierced and what health information is shared with whom (e.g., multidisciplinary providers have access to the medical chart containing sensitive information, such as past sexual abuse, relationship tensions, sexual orientation, or financial difficulties). Privacy is challenged when hospital rooms have two or more beds as visitors, staff and other patients may inadvertently overhear sensitive material. Privacy is further nuanced by the fact that involving a family member in bedside CT often advances the therapy; inviting family participation results in better patient support, communication and problem solving, but exists in tension with the ethical principles of privacy, respect, and autonomy.

The therapist's reaction to seeing the patient's frail body, exposed body parts, urinary catheters, and fresh surgical scars, for example, plays a critical role in the development of trust and a strong therapeutic alliance. Patients are often sensitive to signs suggesting the therapist's approval, disapproval, or disgust (Levin, Agid, & Abramowitz, 2003) and therapists should be cognizant of their subtle verbal and nonverbal reactions to ill patients.

Additionally, while handshaking has fallen out of favor in acute cancer settings due to the risk of transmitting nosocomial infections, it is often a cultural expectation. The decision to avoid handshaking should be explained to avoid evoking cognitions of shame or mistrust. While physical contact beyond handshaking is generally avoided in psychotherapy, in acute cancer settings, a timely hug or hand on the shoulder may be particularly powerful and appropriate as a sign of caring or when death is near.

Neurocognitive manifestations of medications are also common in acute cancer settings. Psychiatric medications such as antipsychotics (used to treat confusion or steroid-induced hypomania), antidepressants, benzodiazepines, stimulants, dronabinol (true medical marijuana), and hypnotic sleep aids are frequently used. Narcotic analgesic pain medications are centrally acting and have a variety of neurocognitive side-effects. While patients may benefit from the combination of CT and psychopharmacology (discussed in detail later on), a familiarity with the neurocognitive realm is necessary to conduct CT in acute cancer settings. Additionally, delirium is seen in one-third or more of critically ill patients (Ouimet, Kavanagh, Gottfried, & Skrobik, 2007). The confusion, delusions, hallucinations, hypoactivity and hyperactivity often seen in delirium need to be recognized, as does the fact that delirium, albeit temporary, is often experienced as traumatic (DiMartini, Amanda Dew, Kormos, McCurry, & Fontes, 2007).

Efficacy of and Indications for CT in Psycho-oncology

There is growing evidence to support the effectiveness of CT in psycho-oncology, although the majority of these studies enrolled patients who were well enough to attend regularly scheduled, protocol-driven, outpatient CT. For example, CT is efficacious for reducing cancer-related anxiety (Greer et al., 2012; Moorey et al., 2002; Traeger, Greer, Fernandez-Robles, Temel, & Pirl, 2012), depression (Osborn, Demoncada, & Feuerstein, 2006), and posttraumatic stress (DuHamel, et al., 2010). It improves severe chronic fatigue (van der Lee & Garssen, 2012) and insomnia among cancer patients, survivors (Matthews, Arnedt,

McCarthy, Cuddihy, & Aloia, 2013) and bereaved family caregivers (Carter, Mikan, & Simpson, 2009), hot flashes and night sweats among men undergoing prostate cancer treatment (Yousaf, Stefanopoulou, Grunfeld, & Hunter, 2012), and breast cancer survivors (Mann et al., 2012), as well as sexual dysfunction among gynecologic cancer survivors (Brotto et al., 2012). CT also improves social skills in young brain tumor survivors (Poggi et al., 2009), and patient adherence to medical treatments (Safren, et al., 2012). Additionally, increasing attention has been given to the delivery of psychosocial interventions to caregivers of patients with cancer, among whom rates of anxiety and depression are often higher than among patients themselves. CT appears to be a particularly effective approach to addressing caregiver burden (Applebaum, 2013).

Taken as a whole, this data reflects the utility of CT in the oncology setting and its likely utility at a variety of transition points, from precancer risk screening (e.g., BRCA gene testing), diagnosis, initiation or completion of cancer treatments, the transition to survivorship (e.g., fear of recurrence, body image), at relapse or worsening of cancer, and during palliative care and end of life.

An Integrative Framework for Acute Cancer CT

While the use of CT for ambulatory, stable, or chronic patients with cancer is clear, the acute cancer setting, as described above, is very different. How then should CT be modified for this setting?

We developed an integrative CT framework for acute medical settings (Levin, White, Bialer, Charlson, & Kissane, 2013; Levin et al., 2013) incorporating the 10 principles of CT (therapeutic alliance; ever-evolving formulation; collaboration; problem-focused; initially present-focused; educative; time-limited; structured sessions; restructuring of dysfunctional cognitions; techniques to change thinking, mood, and behavior; [J. Beck, 1995]).

Building on our previous work, this article extends the approach from acute medical to the acute cancer settings, based on a growing body of psycho-oncology research. As cancer is ubiquitous in the community, our purpose is to teach cognitive therapists advanced practice skills so that they can provide better CT to the one in three people who will develop cancer over their lifetime. In the interests of brevity, we focus here on cognitive strategies, but behavioral strategies are also important to this work.

The Cognitive Model and Formulation in Acute-Cancer Settings

The foundation of CT is the cognitive hypothesis: it is not a situation that in and of itself determines what we feel but rather the way we construe a situation (A. Beck, 1964). A reasonable question, however, is whether this model is too simplistic in the context of cancer. For example, is a patient with severe or metastatic cancer more likely to be depressed than one with a small tumor that was caught early? Or if a patient is closer to death, will he or she be more depressed and anxious? Research, in fact, supports the cognitive hypothesis even in the setting of medical illness. For example, depression and anxiety levels are similar in patients with metastatic versus early breast cancer (Kissane et al., 2004), and rates of

mental disorders and existential distress do not increase as death from cancer approaches (Lichtenthal et al., 2008).

A vital, unifying element that defines CT in acute cancer and traditional outpatient settings is the case formulation as the starting point for treatment (Persons, 2008). Specifically, the formulation provides a framework for conceptualizing and integrating medical, psychiatric, and social problems within the greater context of the patient's life and the mental status examination (White, 2001). However, because CT unfolds so rapidly in acute cancer settings and the therapist must act immediately to bring about improvement, the case must be formulated quickly, perhaps within 20 to 40 minutes. The aim is to use CT techniques in the initial meeting to bring about relief based on the tentative formulation. Without the luxury of a second intake interview or starting the CT at the "next visit," therapists must analyze the data, formulate the case, and implement a therapeutic strategy efficiently.

The multidisciplinary team, patient's family, and community care providers are important sources of data for the CT formulation and in understanding the referring clinician's undeclared clinical-emotional-reaction (CER) or countertransference, which often triggers consultation requests. For example, a family's desire that "everything be done" for a patient with worsening cancer may engender helplessness and guilt in the physician, which triggers a referral "for evaluation of depression." The true referral question, however, is how to facilitate a discussion between patient, family, and physician around prognosis and the transition to hospice care.

Communicating with oncologists, nurses, social workers, clergy, and other members of the multidisciplinary team leads to a biopsychosocial understanding of the cancer experience. Appreciating medical (e.g., diabetes) and psychiatric (e.g., substance use) comorbidity, medications (e.g., steroids, narcotics), investigations (e.g., location of brain metastases), and how medically caused symptoms such as hypoxia, delirium, or sepsis can be mistaken for psychological ones, such as anxiety and depression, is important.

Cognitive responses to coping with illness are often based on childhood templates. In formulating the case, it is therefore necessary to explore the patient's history, specifically as it relates to trust and the ability to self-soothe. Themes relating to sexual, physical, or psychological abuse often reemerge in acute cancer settings where patients are asked to trust others with their bodies. For example, one patient who had been sexually abused as a child, without telling her physicians, stopped taking her immunosuppressant medications after experiencing frustrations in her medical care. Another with a history of abuse and cervical cancer insisted on a female physician and leaving the door to her room open during chemotherapy; treatments and examinations of her genital area revived a flood of memories and insecurities.

Intrusive images or memories relating to cancer diagnosis, misdiagnosis, poor doctor-patient communication, or childhood illness are critical elements of the formulation. Consider an elderly patient who refused to undergo surgery for a curable head and neck cancer. It emerged that he was traumatized by the smell of ether used when he had his tonsils out over 50 years previously, a fact that was central to the formulation and subsequent treatment.

Appreciating the family's cancer history and real versus perceived genetic vulnerability to cancer is also critical. To illustrate, one patient was overwhelmed and guilt ridden by the possibility that she had given her "bad cancer genes" to her children.

Illness-related critical incidents that frame a person's perception of their illness and the medical system are included in the formulation. For many, the path to cancer diagnosis is circuitous, as some cancers are difficult to find and identify. Misdiagnosis and poor communication when "breaking bad news" are also contributors to patient distress. For example, after a routine breast biopsy, a busy surgeon brusquely gave an unexpected breast cancer diagnosis to her patient who promptly fainted, further irritating the surgeon. In such cases, the first task of CT might be to help the patient process the experience of diagnosis, address the manner in which the information was communicated, and perhaps even problem solve to find a new surgeon who better suits her needs. It is not uncommon for a patient's hostility and hypervigilance to be framed by a missed diagnosis, and therefore perceptions of such critical incidents should be included in the formulation.

Common to all CT, the formulation links beliefs to emotions and evaluates how well they serve the overarching goal of coping with illness. Both maladaptive and adaptive beliefs can be considered because cognitions that helped the patient cope with a past crisis might also be adapted to the acute cancer setting. Even in the acute cancer setting, the formulation may also consider how dysfunctional cognitions might be framed to service the longer-term goal of survivorship. Cognitions relating to addictions (e.g., nicotine), wellness and self-care (e.g., the "workaholic"), and relationships (e.g., an estranged child) may all be considered in the formulation, even though they would not necessarily be the short-term focus of CT.

Intermediate beliefs (rules and attitudes) often inform maladaptive coping responses in acute cancer settings and are important to the formulation. For example, a workaholic who believes that he must work or be busy in order to succeed may become depressed in the hospital settings, especially when in respiratory isolation. Beliefs linking a healthy appetite to recovery can result in anxiety when a patient has no appetite or cannot eat. Conversely, a patient who eats excessively because of the belief, "You must eat, if you want to be strong" may be compromising his health. Other intermediate beliefs seen in acute cancer settings are presented in Table 2.

Illness attributions that may inform the formulation are elicited by asking, "What do you think caused your cancer?" Where there is no clear reason for what triggered the malignancy, patients naturally try to make sense of why cancer happened. Misperceptions here may lead to dramatic changes as patients try and avoid the perceived insult, such as relocating to a different town, detoxify their bodies with changes in diet or purging enemas, becoming religious, or attempting to reduce stress by making significant and impulsive decisions (e.g., suddenly getting divorced). Often when patients exhibit poor health-related behaviors such as smoking cigarettes, alcohol abuse, or unprotected sex, they can be blamed for their cancer diagnosis, stigmatized, or made to feel isolated. Moreover, beliefs that sustain substance abuse or motivation for abstinence are important to detail in the formulation and subsequent treatment plan, as smoking can, for example, compromise a skin graft and delirium tremens from alcohol withdrawal is life threatening.

Coping in Acute Cancer Settings

A coping, rather than a curative, model is most helpful in working with patients with cancer. Coping is defined as the cognitive and behavioral efforts used to regulate negative emotions, manage the problem causing negative emotions, and foster well-being (Folkman & Lazarus, 1988). Outcome (e.g., survival from the cancer, or getting rid of anxiety) is not part of the definition of coping. “Coping better with . . .” readily becomes an achievable goal for CT and may include improved coping with surgery, infusions, radiation, relationships, parenting, work responsibilities, survivorship and wellness challenges, and death and dying.

There are three types of coping pertinent to acute cancer settings: emotion-focused, problem-focused, and meaning-focused (Folkman & Lazarus, 1988). Here we limit our discussion to emotion-focused and problem-focused coping. Meaning-focused coping is outside of the scope of this paper but involves finding renewed meaning despite the suffering of cancer, and meaning-based interventions have showed efficacy in reducing anxiety and increasing spiritual well-being among patients with advanced cancer (e.g., Breitbart et al., 2012).

Emotion-focused coping involves efforts to deal with a distressing emotion and may include cognitive reframing, distraction, prayer, and avoidance, the latter of which is the most common type of maladaptive coping seen in acute cancer settings and is often a target for CT. For example, a stoic patient who ignores a chest pain because of fear of returning to the hospital may pay a high medical price for a late-presentation myocardial infarction that is outside the time frame for receiving antithrombotic therapy. Similarly, a patient who, worried about his appearance after surgery, avoids leaving the apartment is at risk for becoming isolated and developing deep venous thrombosis.

Problem-solving is an important contributor to better coping, as multiple, parallel, and complex problems characterize the acute cancer setting. Patients commonly ask the following:

“What do I tell my children?”

“My doctor lacks bedside manner but I cannot change oncologists now, can I?”

“I was dismissed from work because of the cancer. What do I do now?”

“Which treatment is best?”

“What do I tell my fiancé about the wedding?”

The problems that arise in the acute cancer setting are both intensely personal and painful and therefore an important target of CT. Problem-solving involves working with patients to: (a) define the problem; (b) brainstorm options; (c) evaluate potential solutions; (d) implement solutions; and (e) monitor the degree of success and fine-tune solutions. Rather than focusing on an automatic thought (AT), this approach considers the benefits of maladaptive versus adaptive problem-solving. Maladaptive problem-solving is based upon erroneous assumptions, as outlined in Table 3.

Problem-solving is enhanced when a significant other is involved, as most complex problems cannot be solved alone and thus the therapist may often conscript family and staff to help (Nezu, Nezu, Felgoise, McClure, & Houts, 2003). Additionally, problem-solving promotes a spirit of experimentation. The therapist might ask, “*Why couldn’t you try A or B for a month to see what happens?*” This, in turn, generates data reflecting the success of the proposed solution and adds excitement to the therapy by lessening an overcautious attitude that feeds into avoidance. For example:

MS. BROWN: I just want the pain and the cancer to disappear completely. [*There is a perfect solution to every problem.*] Once they go away, my problems will be over. [*All of my problems are due to my illness.*]

DR. GREEN: How realistic is it to expect the radiation to resolve all of the pain and cancer instantly? What might be more reasonable expectations? [*Set realistic goals; there may not be a perfect solution.*] What are your options for coping better with the pain? Can we list them on this piece of paper? Didn’t your oncologist say that you could take additional medication for breakthrough pain? Could consulting with a pain management physician be beneficial? [*Generating alternatives.*]

Additionally, decatastrophizing can be part of this dialogue (e.g., “*What is the worst that could happen if you asked about a second opinion?*”). One unique aspect of problem-solving in acute cancer settings is therapists will often need to guide patients or advocate for them, using their knowledge and resources within the health care system. Examples include calling the oncologist to clarify a concern, activating the quality assessment mechanism to investigate a delivery-of-care problem, or trying to help the patient sort out billing issues.

The Role of Empathy in Acute Cancer CT

There are two reasons that empathic strategies are core elements of acute cancer CT. First, it is critical to build a strong therapeutic bond as quickly as possible to facilitate CT’s unfolding in what is usually an environment of uncertainty. A patient will not likely discuss life and death concerns with a stranger they may not trust; thus, the therapist’s first task is to build a framework based on trust and that reflects an ethic of caring and respect. Second, success in CT is predicated on activating rational learning processes. Cognitive restructuring is challenging in the context of strong negative emotions and the physiologically aroused fight, flee, or freeze response to a threat, both of which impede learning (Portnoy, 2010). Empathic strategies help the patient to disengage from such strong negative emotional states. Its prosocial function signals future collaborative, cooperative, and, often, altruistic actions. Empathy acts to frame the environment as nonthreatening, facilitating communication, affiliation, and fondness (de Vignemont & Singer, 2006). All of these promote more rational problem-solving and the implementation of CT. Eight empathic strategies that can be employed are described in Table 4.

A good strategy is for the first introductory sentence of acute cancer CT to contain an empathic statement. For example:

DR. GREEN: My name is Dr. Green from psychiatry. Your oncologist suggested that I might be of assistance and looking through your chart, I see that you have had

a terribly difficult month since your diagnosis with pancreatic cancer ... [*Empathic silence*]

Reframing Thoughts and Images

In classical CT, reframing identifies the “hot cognition,” which is ascertained through exploration of affect fluctuations: “*When you feel angry, what thought goes through your mind?*” This is followed by an “evidence for and against analysis,” where the patient rates the degree to which an AT is true and the severity of their emotional reaction. Evidence supporting or negating that distorted cognition is evaluated to help the patient see other ways of looking at this situation and thereby reducing the intensity of the associated emotion. The following six sections consider some of the unique reframing challenges in acute cancer CT.

The Grain of Truth

A challenge in acute cancer CT is there is often a “grain of truth” behind so-called “distorted” cognitions (Greer et al., 2012). For example, a patient who says, “*I am worried that I will die from this cancer,*” may indeed die from cancer. The patient who says, “*My family is avoiding me,*” may be recognizing that his family is using avoidant coping because the potential of losing him is so overwhelming.

In order to address the grain of truth in these cognitions, the therapist should consider the degree to which the cognition is valid. If the worry or guilt associated with that cognition is disproportional, CT can target that excessive component. The cognitive therapist should use problem-solving to address the grain of truth itself. In the examples above, this might entail planning for death and dying and communicating with family members about their fears and avoidance. Realistic thoughts that are intrusive or burdensome can also be targeted with strategies that promote acceptance and behavioral therapies such as relaxation or distraction.

Reframing Treatment-Related Distortions of Self-image

In addition to restructuring thoughts, reframing distorted images is helpful in acute cancer settings, especially where treatment-related physical problems decrease confidence and are seen as stigmatizing. Again, there may be a grain of truth to these images. For example, it is not uncommon for women who lose their hair, a potent symbol of vitality and sexuality, to withdraw from perceived scrutiny. Consider the following example:

PATIENT: “When I look at myself in the mirror, I see a post-chemo concentration camp survivor. That’s why I don’t want to leave the apartment.” [*Grain of truth: World War II concentration camp victims had their hair shaven, but as an act of persecution and dehumanization by the Germans.*]

DR. GREEN: To what degree is this image applicable to your situation? Did you lose your hair as an act of persecution and humiliation or because the doctors were trying to help you?

PATIENT: I realize that my baldness is because of the treatment that will cure this cancer, so perhaps that is not the best comparison...

DR. GREEN: Even if the comparison was valid, imagine a concentration camp survivor without hair sitting in that chair. [*Externalizes*] Would you say, hide yourself away or would you say, hold your head high? ...

PATIENT: I would say, "Be proud of your strength. You survived."

DR. GREEN: What about a college kid with a shaven head... or an African woman who keeps her hair really short? Can short hair be a source of pride? Can it reflect a genuine struggle, as in your case and the concentration camp survivor's that need not be hidden away?

Catastrophizing

Cognitive restructuring in the acute cancer setting commonly focuses on catastrophizing. Here, concerns are amplified by focusing on the worst possible outcome to the exclusion of other possibilities. For example, the common cognition that "cancer means death" ignores data suggesting the majority of cancer patients will in fact survive (e.g., the overall 5-year relative survival for 2003–2009 from 18 SEER geographic areas was 65.8%; Howlader et al., 2010) and with newer treatments these statistics will improve further. Decatastrophizing, by exploring the best, worst, and most likely outcomes and creating a plan for coping with the worst-case scenario, should it come true, is an effective strategy. For example:

MS. BROWN: Cancer is a death sentence.

DR. GREEN: What has your oncologist said about the prognosis?

MS. BROWN: The lymphoma is widespread. It may kill me.

DR. GREEN: So the worst-case scenario is that, because it has spread, you may die. What is the best-case scenario?

MS. BROWN: That the lymphoma will be cured. My oncologist said that there are new treatments in the pipeline.

DR. GREEN: And, what is the most likely outcome?

MS. BROWN: He said that we have to wait and see how I respond to treatment. Patients who respond can live for several, often many, years.

DR. GREEN: So the most likely outcome is that, if you respond, you may live from several to many years. Can we talk about the worst-case scenario? If this were to occur, what sort of planning might be helpful?

Decatastrophizing is further considered in the section on prognosis. Other similar types of cognitive distortions that are commonly seen in acute cancer settings are all-or-nothing thinking ("*If the cancer comes back, I am dead*") and mind-reading ("*No man will want to touch me after seeing the breast reconstruction scar*").

Fear of Recurrence

It is important to educate patients about helpful anxiety, which motivates people to attend to problems and initiate change (e.g., participate in cancer screening) versus pathological anxiety, which serves no end purpose (e.g., "I am worried sick...") (Hollandsworth,

Glazeski, Kirkland, Jones, & Van Norman, 1979). Consider the patient who says, “*I palpate under my arms every day until the skin is red, just in case it has returned.*” The grain of truth is that earlier detection of recurrence may in fact improve survival. The CT approach is to consider rational evidence-based approaches for cancer surveillance. For example, fear beliefs can be gently challenged: “*Which has more discriminatory power, a PET scan (that detects 0.5cm hot spots) or your fingers’ ability to detect a lump under your skin?*” Additionally, empathic Socratic questioning can be helpful for patients to appreciate the medical rationale for the frequency of scans:

DR. GREEN: Your oncologist asked that your next scan be in six months. That must seem like a long time away. [*Empathic response.*] Are there any advantages to daily, weekly or monthly scans according to medical research? Is there any disadvantage to more frequent scans such as the risk of exposure to unnecessary radiation? What are reasonable approaches to surveillance? If the tumor does recur, what is the plan? [*Worst-case scenario.*]

Importantly, fear of recurrence after treatments have been completed should be addressed since excessive fear and caution has the potential to impede the transition from cancer patient to cancer survivor, hindering adaptation and personal growth (Garrett et al., 2013).

The “Tyranny of Positive Thinking”

Our society places great emphasis on positive thinking. Consequently, many patients experience great pressure to think positively (Held, 2002), often based on the assumption that “negative” thoughts may somehow worsen the cancer. In the context of life-threatening cancer, however, an absence of negative thoughts, which usually relates to death and dying, is unrealistic. Moreover, avoiding discussing death and dying is maladaptive for patients and caregivers. Instead of promoting an absolute stance of positive thinking, CT suggests that *realistic optimism* is more adaptive.

Thinking positively is also related to the fear of “losing hope,” which may also be conceptualized as an AT. Hope is a broad construct (e.g., hope for a cure, for prosperity, for peace, optimism), and loss of hope may be conceptualized as a dysfunctional AT embodying black-and-white thinking (e.g., hope cannot be lost like a wallet). Cognitive restructuring is enhanced by education about the relationship between hope and the biological course of cancer (i.e., there is no such direct, causal relationship; hope will not change the biological course of cancer). Additionally, merely addressing emotions empathically, even without reframing, sustains hope within the therapeutic relationship:

DR. GREEN: I understand that you have been through a difficult surgery and your surgeon is not sure whether you are out of the woods yet. That must be tough [*Acknowledging uncertainty in a supportive way promotes hope.*].

Realistic optimism can also be extended into the dying phase of treatment, merging well with the notion of a good and meaningful death.

Second Opinions

Second opinions are helpful when deciding upon treatments within the continuum from community providers to tertiary cancer centers. Many patients are reluctant to request second opinions due to underlying dysfunctional ATs, such as “Asking is impolite,” or “My doctor may be insulted.” Such thoughts are gently challenged by considering whether two heads are better than one, if the physician might be honored by another expert agreeing with his or her recommendations, whether thinking outside the box may generate further ideas, and whether more choices are better than fewer. Seeking second opinions also falls into the realm of problem-solving.

Discussing Prognosis

Understanding prognosis is a defining challenge of the acute cancer setting because this “prediction about a patient’s future” (Lamont & Christakis, 1999) is essential for planning treatment and life outside treatment. There is, however, a lack of a consensus in defining this construct as prognosis has multiple dimensions pertaining to the patient’s future, including the curability of the illness, lifespan estimates, likely response to treatments, and quality of life left to live (Applebaum et al., 2013). In order to help patients cope with uncertainty about the future, the therapist should clarify the type of prognostic information they desire and facilitate their effective communication with medical physicians who are an important source of prognostic information (Jackson et al., 2013). Importantly, prognosis and prognostic awareness are moving targets that may change over the course of the cancer trajectory and therefore such conversations may recur throughout the course of the therapeutic work.

Research shows that prognostic awareness reduces psychological distress (Chochinov, Tataryn, Wilson, Ennis, & Lander, 2000; Innes & Payne, 2009; Lichtenthal et al., 2009), facilitates end-of-life advance care planning (Bradley et al., 2001), and improves quality of life and bereavement outcomes among caregivers (Hebert, Schulz, Copeland, & Arnold, 2009). Prognostication that is too optimistic may result in later mistrust or disappointment and when patients outlive a pessimistic prognosis, they feel paralyzed, “waiting to die” or “living on borrowed time.” Most doctors are too optimistic, with accurate predictions occurring in only 10% to 30% of cases (Lamont & Christakis, 1999). Doctors who are very fond of their patients are more likely to be too optimistic, but ICU physicians, perhaps because they see so many patients die, tend to be more pessimistic.

Acute cancer CT identifies four potential problems with appreciating prognosis: (a) the tendency to catastrophize (e.g., pancreatic cancer equals death); (b) misunderstanding statistics; (c) not appreciating the duality of prognosis (e.g., the chances of living versus not living); and (d) the tendency to equate prognosis with lifespan estimates. Here we address all of these problems through an exploration of the fourth and particularly common prognostic concern. Rather than asking, “*How much time do I have left?*” which confounds median with average survival, acute cancer CT suggests that patients be coached to ask about prognosis as, “*What are the best, worst, and most likely outcomes?*” This is a classic CT decatastrophizing tool.

Median survival data can actually be mapped onto these three categories. For example, a 12-month median survival means that, of 100 patients, 50 will live longer and 50 will live less than 12 months. The most likely outcome is that 50/100 similar patients would live for 6 to 24 months (half to double predicted median). The best case is that 10/100 could expect an excellent response to treatment with prolonged control and survival beyond 3 years (3 to 4 times predicted median). The worst case is that 10/100 will experience rapid progression and death within 2 months (1/6th of the median survival; Kiely, Tattersall, & Stockler, 2010). Importantly, the most essential task when discussing the worst-case scenario is to develop a plan for coping with it, should it come true, even if it means that the outcome is death. Here, the therapist should offer a statement of nonabandonment (van Vliet, van der Wall, Plum, & Bensing, 2013), such as, *“If the worst case scenario comes true, we will do our best to help you and your family, even if it means that you are facing death...”*

Percentages are prone to cognitive distortion (e.g., a 10% discount voucher to a clothing store may not be as meaningful as a 10% reduction in income tax). A better way to describe percentages is, therefore, as a number out of *“100 patients with your type and stage of cancer.”* Additionally, discussing prognosis as the chance of living or not living (mixed framing) fits into the CT philosophy of realistic optimism, which may serve as a helpful tone for prognostic conversations.

Personalizing prognosis can be used to promote hope. Cutting-edge treatments, superior delivery of care, younger age, fitness, less comorbidity, increased social support, genetic hardiness, education, and financial resources can all improve prognosis and can be used to support the likelihood that the patient might fall into the best case category. Less tangible variables, such as prayer, love, music, and wellness strategies, can also be invoked to cognitively personalize the odds as to why a poor prognosis may not apply (Folkman, 2010).

Discussing Death and Dying

The discussion of death and dying occurs frequently in acute cancer CT and this conversation is facilitated by the therapist's expectation of and openness to raising the subject. Often misperceived as being an uncomfortable conversation, most cancer patients have in fact contemplated their mortality and the invitation to discuss death and dying further may be both welcome and a relief. For a variety of reasons, these patients may or may not have shared their thoughts or concerns with their families or clinicians. Often it is the misperception that discussing death and dying will result in loss of hope or accelerate death that leads to avoiding this discussion. In reality, sharing concerns and planning for uncertainty may actually draw a family together, reduce the burden on the patient, and improve hope for dealing with the worst case scenario and beyond.

A good way to begin this discussion is to ask open-ended questions such as *“How do you see the medical situation at the moment?”* *“Where do you see things heading?”* or *“Tell me more about your prognosis,”* which allows the patient to guide the pacing and tone of the conversation. Asking directly, *“What thoughts have you given to death and dying?”* is also a good way to proceed. Therapists should use the words death and dying rather than euphemisms such as “passing away” or “the end.” Further Socratic questioning can elicit

information about what is important for them at the end-of-life, where they would like to die (e.g., home, hospice, or hospital), and advance care planning that may include an Allow Natural Death directive.

Asking about past family experience with death and dying (i.e., *What went well? What could be improved upon? How can these experiences guide us now?*) allows previous coping templates to be adapted to present challenges. ATs relating to past losses may need to be reframed. For example, a patient who states, “My grandmother died in pain; I don’t want to suffer like her,” may not realize that modern cancer pain management is much improved.

The cognitive therapist’s consistent presence is helpful as these dialogues develop over time rather than all at once. However, due to the emotional valence of these conversations, the CER may be one of avoidance; awareness of the tendency to avoid seeing dying patients is important and can also be addressed in supervision. For example, a therapist may avoid seeing the patient with the excuse of, “the patient was resting, and I did not want to intrude.” In reality, it was hard for the therapist to cope with the CER of overwhelming sadness, reminiscent of a recent family death.

Psychoeducation, including the provision of information about resources and services (e.g., palliative care, hospice), and what to expect as death approaches, is an instrumental element of these discussions. Moreover, through discussions about what it means to seek a “good death,” CT can facilitate personal growth, meaning, and inspire others. For example, asking a family for forgiveness, forgiving them, expressing love, thanking them, or saying to a child, “I’m proud of you, son,” can have an enormous impact, and such cognitions may resonate through subsequent generations (Byock, 2004).

Desire for Hastened Death

Appreciating the desire for hastened death and/or assisted suicide is vital in acute cancer settings. There is evidence that treating depression decreases this desire (Breitbart, et al., 2010) and therefore cognitive therapists should actively address depression in these cases. Indeed, the root of many patients’ desire for a hastened death may reside in dysfunctional thoughts such as, “*I get claustrophobic in small spaces like coffins*” and “*I deserve to die.*” Exploring such cognitions by asking, “*What are your biggest fears about death and dying?*” will allow the cognitive therapist to reframe dysfunctional thoughts. For example, if the patient worries that death is always painful based his perception of his grandfather’s death in 1975, the therapist might explore how good pain management can facilitate a more peaceful death and contrast the state of palliative care in 1975 versus the advances of the present day.

Suicide

Oncology clinicians and families are shocked when a patient with cancer commits suicide, despite that fact that suicide in cancer patients occurs at twice the rate of the general population (Misono, Weiss, Fann, Redman, & Yueh, 2008). Suicide is associated with cancer site (i.e., pancreatic, lung, prostate, head and neck), male gender, age greater than 65, depression and hopelessness (Anguiano, Mayer, Piven, & Rosenstein, 2012). It is also

recognized that panic and relationship problems may be triggers, and that cancer survivors are also at risk for suicide (Madeira, Albuquerque, Santos, Mendes, & Roque, 2011).

In acute cancer settings, it is critical to develop a suicide safety plan with at-risk patients, and it is often this therapeutic work that facilitates continuation of cancer treatment. Unlike a “contract for safety,” which is often written by the clinician and signed by the patient, the suicide safety plan is developed collaboratively, written by the patient, and most important, reflects the cognitive formulation, the therapeutic work, and the therapeutic relationship.

By identifying the “hot cognition” related to the desire for suicide, reframing these thoughts, and performing an advantage/disadvantage analysis of the reasons for living, the cognitive therapist and patient work to motivate the patient to live. The “reasons for living” conversation is framed by a discussion around the risk of dying from cancer and a collaborative plan for dealing with this worst-case scenario.

For those readers who desire more details, we have previously published a comprehensive illustration of a suicide safety plan and how it is developed (Levin et al., 2013).

CT-Psychopharmacology

Unique to the acute cancer setting is the strong mandate for combination CT- psychopharmacology. The interaction between the two is explained by the cognitive-biological model, which posits an interactive cycle between cognitive appraisals, biological modulation (neuronal, neuroendocrine, autonomic), emotions, behavioral responses, and environmental influences, such as social and interpersonal relationships (Wright & Thase, 1992). Examples of biological and environmental modulators of psychological responses to illness include depression triggered by corticosteroids (Stiefel, Breitbart, & Holland, 1989), presumably by activation of neuroendocrine pathways; certain cancers having a higher rate of mixed anxiety-depression (i.e., stomach, pancreatic, head and neck, lung; Brintzenhofe-Szoc, Levin, Li, Kissane, & Zabora, 2009); and chronic pain (treating pain often improves depression; Bair, 2003). Thus, there is a theoretical advantage to using CT and biological treatments to target the cognitive-biological continuum in psycho-oncology.

Medications can target depression, anxiety, poor concentration, fatigue, tearfulness, hopelessness, and fear, all of which can hinder learning when left untreated and pose significant threats to cancer treatment. For example, in a claustrophobic patient reluctant to undergo an MRI or have a radiation simulation mask applied, in addition to relaxation strategies, a benzodiazepine can target the neuronal elements of the cognitive-biological model. Data on the synergistic effect of CT-psychopharmacology in cancer settings are lacking but anecdotal psycho-oncology experience from our work at Memorial Sloan Kettering Cancer Center suggests that the combination of CT and medications such as antidepressants is often more effective than either alone.

Integrating the prescriber with the CT is critical. A psychiatrist – cognitive therapist or a prescriber (MD, NP) and separate cognitive therapist (PhD, MSW, NP) are two possibilities. In the latter model, excellent communication between the two providers and sharing of follow-up notes through an electronic medical record is helpful.

Combined CT-psychopharmacology commences with sharing the cognitive-biological conceptualization of such treatment with the patient, framing medications as coping tools in the anticancer toolbox. The biological components of depression-anxiety are discussed using psychoeducation and the advantages versus disadvantages of psychiatric medications are evaluated. Drug education handouts are helpful to familiarize patients with their medications, thereby promoting adherence. Depression and anxiety levels are measured using validated self-report instruments and treatment goals are set collaboratively. Session agendas for the cognitive therapist should include a medication/side-effect check and for the prescribing pharmacologist, an assessment of progress in therapy. Framing a trial of medication or CT as a 1-month experiment, at the end of which utility will be assessed, is useful for patients who are ambivalent about either modality. Cognitive therapists using a cognitive-biological model should appreciate the utility of medications, their target symptoms, and side-effects.

Conclusions

Acute cancer CT functions in a unique environment, at a critical turning point in the lives of patients with cancer and their families. As in all CT, a concise formulation is central so that distorted cognitions can be reframed and problem-solving can improve coping, depression, anxiety, and other target symptoms. Unlike conventional outpatient CT, the intervention must begin within the first 20 to 40 minutes and requires a rapid case formulation. The grain of truth behind many distorted cognitions, the “tyranny of positive thinking,” and fear of recurrence are examples of unique reframing challenges seen here. Prognosis, dying, desire for hastened death, and suicide are other unique themes of the acute cancer setting. Combined CT-psychopharmacology, a skill rarely taught, is essential in this environment where chronicity of stressors, pain and other biological variables worsen symptoms. The central role of empathy in reducing physiological bracing for the perceived threat and promoting trust sets the tone for acute cancer CT.

In light of the ubiquitous nature of cancer, most cognitive therapists will encounter patients with cancer in their practices. Acute cancer CT is a skill set that should be widely taught to cognitive therapists and be flagged as a priority for academic programs and professional organizations.

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Highlights

- The acute cancer setting requires adaptation of CT parameters
- An empathic approach and coping model are key
- Be realistically optimistic (avoid the tyranny of positive thinking)
- Reframing should account for the “grain of truth” and time urgency
- Prognosis can be discussed in terms of the best, worst, most likely outcomes
- CT and psychopharmacology are commonly combined
- Perceptions about death and dying form an important part of CT

Table 1

A Comparison of CT in Acute Cancer Settings vs. Usual Outpatient Psycho-oncology Care

	Acute Cancer Setting	Outpatient Psycho-oncology
Coping crisis	+++	+
Family involved in CT	+++	+
Focus on cancer, treatments	+++	++
Recent diagnosis/relapse	+++	++
Focus on survivorship	+	+++
Flexible CT parameters [*]	+++	+
Patient medicalized ^{**}	+++	+
Multidisciplinary team ^{***}	+++	+
Time urgency	+++	+
Medical unpredictability	+++	+
Threat to life/prognosis uncertain	+++	+
Psychiatric medications	+++	+
Delirium	++	+

⁺ Occasionally present⁺⁺ Often present⁺⁺⁺ Frequently present^{*} Flexible CT parameters: length, frequency, bedside, interruptions for medical care, room-mates/privacy^{**} Patient medicalized: pain/discomfort, drainage tubes, medical devices, disability, IV medications, hospital gown/body exposed^{***} Multidisciplinary team: involved in referral and management; notes entered into general medical record not separate psychiatry chart

Table 2**Intermediate Beliefs in Acute Cancer Settings**

Intermediate belief	Reframe
If you are ill, you should rest.	Resting helps recovery from an acute illness like influenza but resting too much can be maladaptive when recovering from cancer, surgery or pneumonia
If I eat organic food and vitamins, I will be healthy.	There is no evidence that millions spent on vitamins are helpful in acute cancer settings but a healthy diet is sensible.
If I pray, God will hear and help me recover.	Hopefully. Praying can also bring people together, strengthen bonds and accept what cannot be changed. When used as an exclusive strategy in acute cancer settings, it may be limiting.
If I listen to my doctor and do what she says, I will get better.	Mostly true, but such a thought may lead to avoiding a second opinion, which is often vital in complicated acute cancer cases.
If I take pills, I am weak.	Nonadherence may result from such a belief. Pills can be described as a tool to help get the job done!
If stress causes cancer, I must get a divorce/retire early.	Untimely divorce could decrease crucial social support. Early retirement might be premature if you make a good recovery. Work and relationship stress can be improved with acute cancer CT.

Table 3

Erroneous Problem-Solving Assumptions in the Acute Cancer Setting

Automatic Thought	Reframe
All of my problems are due to cancer.	Cancer cannot be blamed for every single problem.
No one can help.	Many patients are helped.
The first answer is always the best.	Later opinions may have a different perspective.
Other cancer patients don't have such problems.	Many do — this is why support groups are so helpful.
There is one, perfect solution.	There may be numerous, imperfect solutions, e.g., radiation, brachytherapy and surgery all treat prostate cancer.
No one understands what I am going through.	Problems are common and normal and therefore many people will understand your dilemmas.

Table 4

Empathic Strategies in Acute Cancer CT

Empathic Strategy	Example
Silence	Shared empathic silence and reflection (10–20 sec)
Normalizing/validating	<i>“It is normal to be upset at such a difficult moment...”</i> <i>“It is understandable that you are angry after all that has happened...”</i>
Name or acknowledge the emotion	<i>“You seem sad.”</i> <i>“I can see that you’re upset.”</i>
Encourage expression	<i>“Tell me more about how you are feeling.”</i>
Active listening	<i>“If I understand you correctly, you are angry because you were told that your mother’s pneumonia would respond to antibiotics...”</i>
Apologize or express regret	<i>“I am sorry that things have not turned out as we might have wished.”</i>
Gesture or touch	Offering tissues, appropriate handshake, hand on shoulder or hug
Praise	<i>“You are very brave.”</i>