Acute Cancer Cognitive Therapy

What makes it unique & what must we teach our trainees

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Acute Cancer CT – what makes it unique & what must we teach our trainees

1. Unique Aspects of Acute Cancer Setting

2. Principles & case formulation

3. Main elements: empathy, coping, reframing, prob solving

4. Behavioral activation (depression); relaxation & hyperventilation challenge (anx/panic)

5. Pharmaco-CT

6. Dying, desire for hastened death, suicidal patients

7. Dissemination and research challenges

1. Acute cancer settings vs. usual outpatient

	Acute Cancer Setting	Outpatient
Coping crisis, recent Dx or relapse	+++	+
Family involved in CT	+++	+
Focus on survivorship	+	+++
Flexible CT parameters	+++	+
Patient medicalized	+++	+
Multidisciplinary team	+++	+
Time urgency	+++	+
Medical unpredictability	+++	+
Threat to life/prognosis uncertain	+++	+
Psychiatric medications	+++	+
Delirium	+++	+
Focus on treatments	+++	+

2a. The Cognitive Model
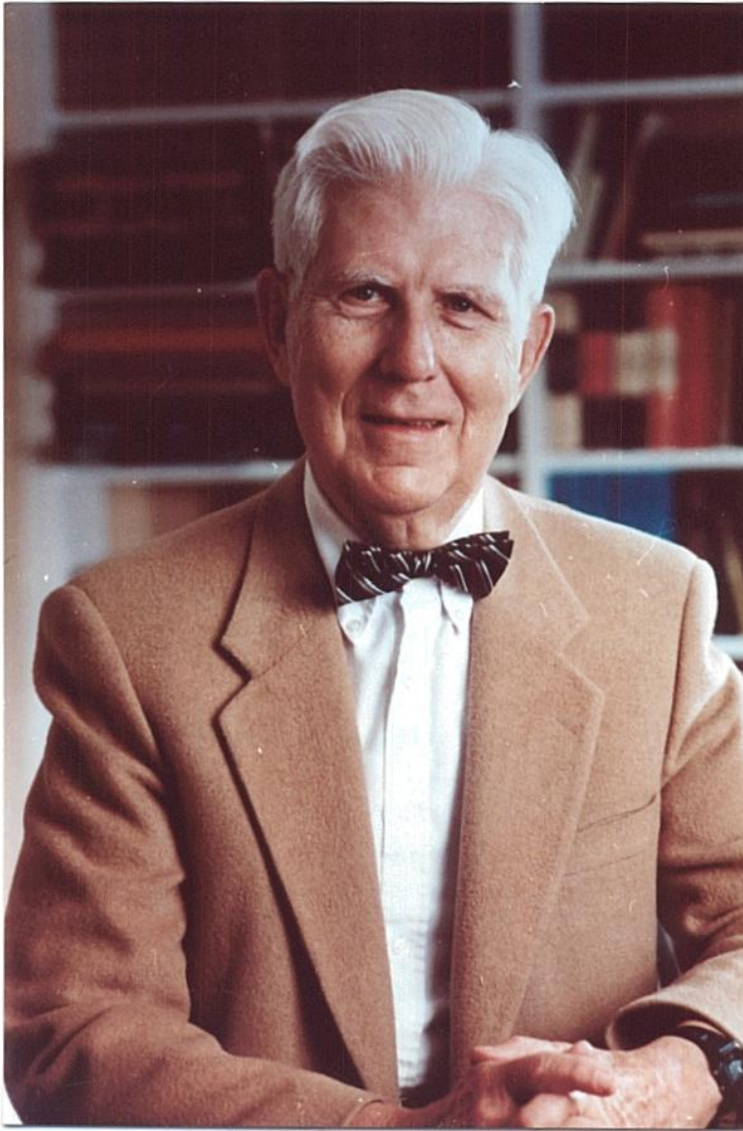
Hypothesizes that it is **not a situation** that in and of itself determines what we feel but rather **the way we construe** a situation.

Beck 1964 and Ellis 1962

Does this hypothesis hold true if you have cancer?

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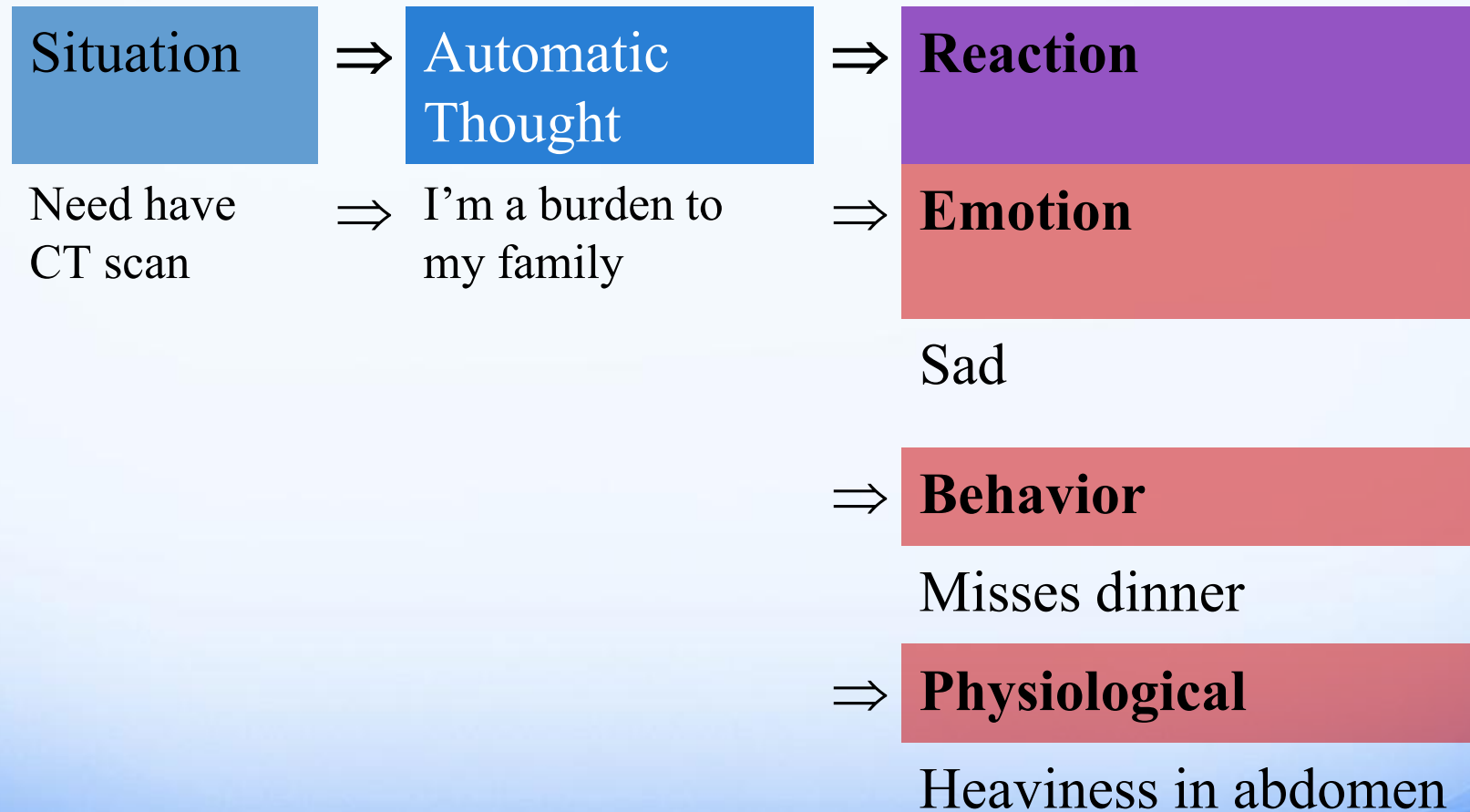# Does cancer severity or closeness to death predict depression?

Evidence for cognitive model: Illness severity does not predict depression

- Late-stage ALS: depression prevalence does not increase over time (Rabkin, 2005)

- Advanced cancer: rates of mental disorders & existential distress do not increase as death approaches. (Lichtenthal 2009)

- Allogeneic vs autologous HSCT: does not predict depression (Syrjala, 2004)

- Stage/medical variables not associated with worse depression in early breast cancer.(Bardwell, 2006; Kissane, 2004)

	Early Cancer	Metastatic
Mood disorders	36.7%	31%
Anxiety disorders	8.6%	6%

The Cognitive Model

| Situation | ⇒ | Automatic Thought | ⇒ | **Reaction** |

Need have CT scan ⇒ I'm a burden to my family ⇒ **Emotion**

Sad

⇒ **Behavior**

Misses dinner

⇒ **Physiological**

Heaviness in abdomen

Central element Acute Cancer CT: identifying & reframing distorted automatic thoughts (AT)

AT: Cancer *means* death

Talkback: 64% of cancer patients become survivors and the vast majority of the remaining 36% benefit significantly from cancer treatments

"I don't want chemo."

AT: Chemo means putting *chemicals* into my body.

Talkback: Chemicals are drain cleaners and insecticides but cancer infusions are well tested, targeted drugs that destroy cancer cells

Thinking errors in acute cancer settings

Type	Example
Black or white thinking	*Cancer <u>means</u> death*
Exaggerating	*I <u>always</u> get the worst side-effects from the chemo*
Discounting the positive	*My oncologist was reassuring, but he's just trying to lift my morale*
Catastrophizing	*I have a 95% chance of surviving; <u>I'm sure</u> that I'll be one of the 5% that relapses*
Mind reading	*The look on my doctor's face <u>must </u>mean that he has bad news*
Emotional reasoning	*I am sad about getting peripheral neuropathy so this illness is <u>certain</u> to turn out badly*

2b. The Cognitive Formulation
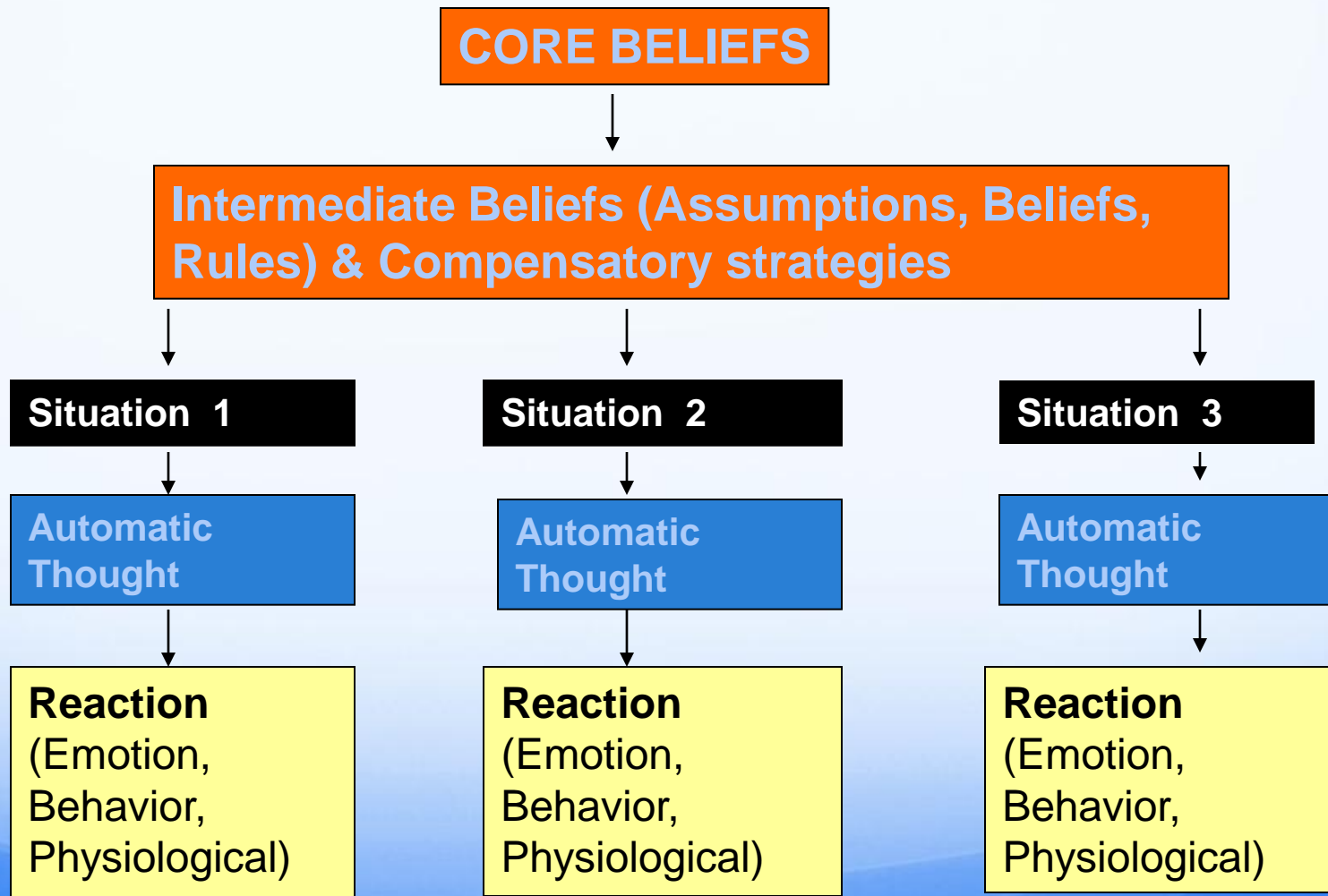
In Formulation Consider…

1. **Trauma/abuse** (cognitions of trust): *The doctor molested me when I was 11 [fractured femur]. I will never spend another night in hospital.* Businessman, aged 41

2. **Loss** & **early illness experiences** (cognitions of abandonment & helplessness): *I choked on ether when they took my tonsils out. I never want anesthesia again.* Delayed surgery, aged 68

3. **Intermediate beliefs: "When ill, you *must* rest/eat…"** [undesirable in chronic illness]

4. **Illness-Related Critical Incidents:** Misdiagnosis, poor communication e.g. fainting case

5. **Current life: (triple whammy):** Divorce, unemployment/financial probs, death in family

Analyze cognitive themes: do distorted ATs fit into known pattern?

- **Depression:** negative view of self, others and future (Becks triad), helplessness, hopelessness

- **Anxiety:** overestimate threat, under-estimate coping resources

- **Social anxiety:** a fear of standing out in a crowd or being the center of attention

- **Panic:** catastrophic misinterpretation of bodily symptoms

Quantitative data

- Philosophy of data driven treatment

- Serial measurement

- Symptom severity (continuous not categorical)

- GAD-7, PHQ-9, tailored Likert scales
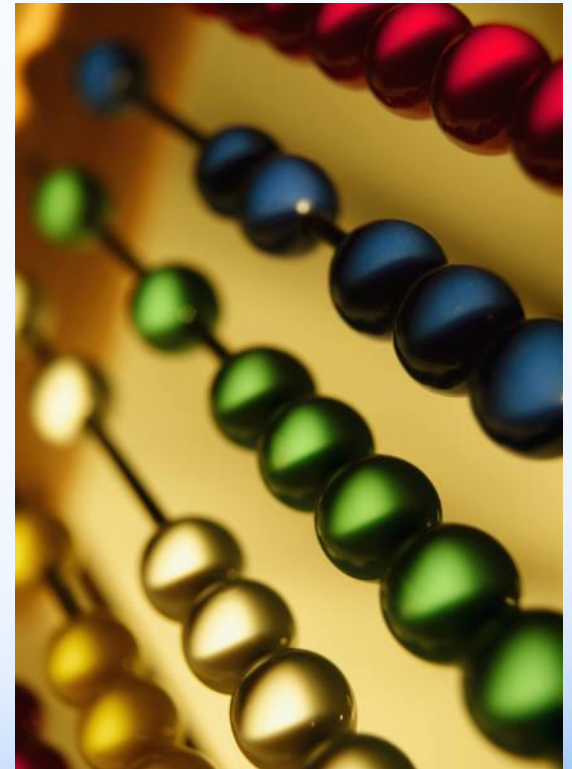
2c. Formulation leads to (collaborative) Goal Setting for Acute Cancer CT

Goals

- **Improve coping**

- **Decrease depression/anxiety***

- **Start anti-depressants**

- **Transition to hospice**

* Mixed anxiety depression common target for Acute Cancer CT

Cancer patients: Depression 18.2%, Anxiety 23.4%, <u>Mixed anxiety-depression 12.1%</u>

Prevalence anxiety, depression, mixed anxiety-depression in cancer
BrintzenhofeSzoc, Levin, Li, et al, 2009, Psychosomatics

2d. Time Urgency: 1st session

- Formulate within 20-40 min

- Reframe hot cognitions immediately

- Challenge beliefs:
  - What is the evidence?
  - What other ways are there of thinking about this?
  - What are the data to support your belief that …?

- Hyperventilation challenge for panic

3.Main Elements of Therapy

3a. Empathy: why is it important to Acute Cancer CT

3b. Improving Coping

3c. Reframing

- Automatic thoughts
- Grain of truth
- Catastrophizing
- Normal vs. Pathological anxiety
- Fear of recurrence
- 2nd opinions

3d. Problem-solving

3a. Why is empathy important to Acute Cancer CT?

Disengages "bracing" for perceived threat: CT predicated on activating rational learning processes. Strong negative emotions, fight/flight/freeze or "bracing" impede learning (Portnoy, 2010)

Uncertainty: To build strong therapeutic bond as quickly as possible in environment of uncertainty

Trust: A patient will not likely discuss life and death concerns with a stranger who they do not know or trust. Empathy reflects an ethic of caring & respect

3b. Improve Coping Cog & behavioral efforts to regulate neg emotions, manage the problem causing neg emotions, & foster well being.   Susan Folkman

Problem-focused

(prob-management)

Instrumental coping, planning, gathering info

Emotion-focused

(Regulating negative emotion)

Reframing, distancing, seeking emotional support, escape-avoidance

Meaning-focused
(regulating positive emotion)
-Goal processes
-Benefit finding
-Focuses on values & beliefs

3 Kinds of Coping

Problem-focused

(problem management)

Instrumental coping, planning, gathering info

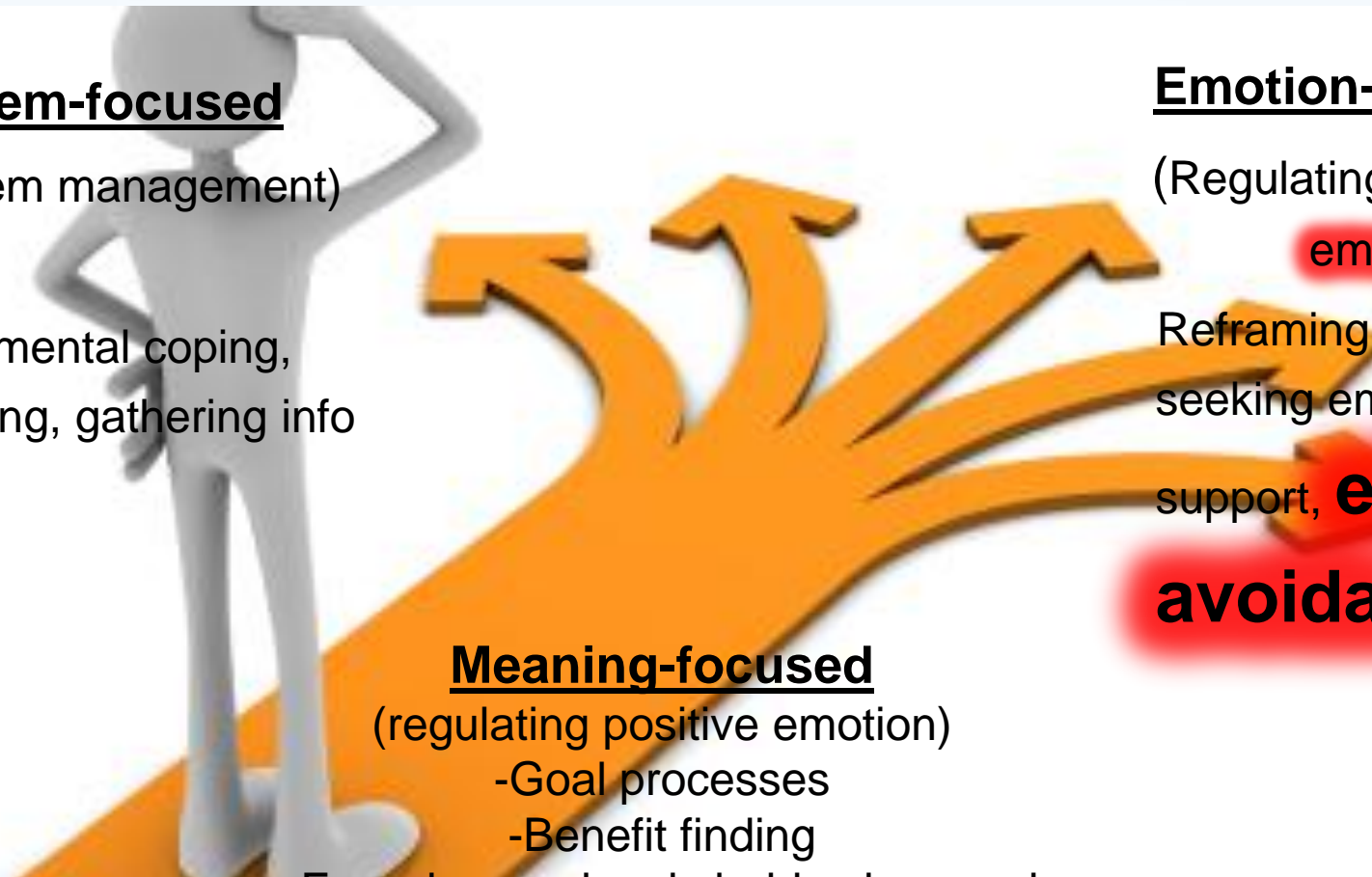**Emotion-focused**

(Regulating negative emotion)

Reframing, distancing, seeking emotional support, **escape-avoidance**

Meaning-focused

(regulating positive emotion)
-Goal processes
-Benefit finding
-Focusing on deeply held values and beliefs

3c. Reframing

*Address emotions empathically before reframing

Identify the hot cognition

- **Explore through affect fluctuations** "*When you feel angry, what thought goes through your mind?*"

Evidence for & against analysis (Beck, 1995)

- **AT:** "*I know I will die if I go ahead with stem cell transplant*" Pt rates degree to which this belief is true (0-100%), severity of emotional reaction to AT, and evidence supporting/negating AT

- Shortcut: "What are other ways of looking at this situation?"

The grain of truth behind "distorted" cognitions

"I am worried that I will die from this cancer. I feel depressed."

"I feel guilty that I will not be there for my son when he graduates, marries, has children."

"My family is avoiding me."

To account for the grain of truth, ask … *To what degree is this cognition valid vs. distorted?* Then, **use either problem solving or reframing** strategy

Catastrophizing (& related distortions)

1. **AT:** *Cancer is a death sentence* [catastrophizing]

   Grain of truth: Many patients die from cancer

   Talk back to AT: Best, most likely, worst case scenario technique. If the worst case comes true, how can we help you..

2. **AT:** *I am short of breath going up the stairs. Maybe the lymphoma is back* [Amplification of physical symptoms]

   Grain of truth: Mediastinal tumors cause shortness of breath

   Talk back to AT: Could anemia, deconditioning or anxiety be contributing to shortness of breath?

3. **AT:** *No man will touch me after seeing the breast implant/scar* [Mind-reading]

   Grain of truth: Scars are not natural

   Talk back to AT: Women have breast implants to attract men

Fear of Recurrence

AT: *I check my armpits until the skin is red to see if it is back. **If it is back, I am dead*** [All-or-nothing thinking]

Grain of truth: Recurrence worsens prognosis & earlier detection of recurrence may improve survival

Talk backs to AT:

- Rational evidence-based, cancer surveillance: most logical approach to detecting recurrences

- *Which has better discriminatory power, a PET scan (detects a 0.5cm hot spot) vs. fingers' ability to feel lump under your skin?*

- There are good 2nd line treatments [decatastrophize worse case scenario]

Pathological vs. helpful anxiety

AT: *Anyone would be anxious in my situation!*

Grain of truth: cancer is anxiety provoking

Talk backs to AT:

Research shows moderate levels of anxiety predict greater likelihood of completing annual mammograms (Montgomery, 2010)

Educate: **helpful anxiety** motivates you to get treatment BUT **pathological anxiety** serves no end purpose and eats away at you. We want to reduce pathological anxiety

Tyranny of positive thinking/Steve Jobs Syndrome

AT: *I must think positively!*

Positive thinking/organic diet will get rid of cancer

Grain of truth: pervasive negative thinking worsens depression; good diet & fitness promote better health outcomes

Talkback:

- Impossible not to have negative thoughts (death) when you have cancer: try not thinking of a purple elephant!

- No data that diet/fitness/positive thinking will stop cancer

- Instead adopt stance of **realistic optimism**

Second opinions

AT: *Asking is impolite. My doctor may be insulted*

Grain of truth: some doctors may be put out

Talk backs to ATs:

- Two heads are better than one
- Doctor may be honored if expert agrees with him/her
- May generate further ideas, more choices better than fewer
- My doctor may be wrong
- What is the worst that could happen?

3d. Problem Solving
Problems = acute cancer setting

Nezu 2003: 90 minutes × 10 sessions, Teaches pts to

- define problem
- brainstorm possible options
- evaluate potential solutions
- implement solutions
- monitor their degree of success & fine-tune solutions
- Family member: conscripted as a coach

Maladaptive vs. Adaptive Problem-Solving

All of my problems are due to the cancer [cancer cannot be blamed for every single problem]

Other patients don't have such problems [many do–hence support groups are so helpful]

There is a perfect solution [there may be numerous, imperfect solutions, e.g. prostate cancer Rx]

Promotes a spirit of experimentation: *Why couldn't you try A or B for a month to see what happens? Neutralizes avoidance/paralysis*

Efficacy of Problem-Solving Therapy for Adult Cancer Patients

- Various cancers stages I – III (n=150), <6 mo of Dx, clinically sig distress

- PST group significantly better on Brief Symptom Inventory (BSI), Profile of Mood States (POMS), Quality of Life Index (QLI) than wait list controls

- More durable effect at 6 & 12 months for patients who received PST **with significant other***

- 4 sessions of **PST via telephone** for early stage breast cancer <50 yrs. **:** similar findings (Allen et al., 2002) **

*Acute cancer CT often includes family

** Telemedicine: adapt to teaching of acute cancer CT

*** Not in the textbooks. **Guide & advocate for pts using your knowledge & resources.**

4. Behavioral Strategies

a. Behavioral activation

b. Relaxation/breathing/hyperventilation challenge

4a. Behavioral Activation

Targets avoidance/withdrawal, common in depressed, anxious cancer pts

- **Scheduling:** In diary, rate Affect (A), Behavior (B), Cognitions (C) or **pleasure/achievement** of daily activities, then schedule graded activities (homework)
- **Set BA up as experiment** (pre/post): *Two sad cancer patients, one sitting alone, the other playing with dog/grandchild, who will feel more depressed?*
- **Aim for sig ($p \geq .05$) improvement, not cure** (NY to London off-course analogy)
- **Walking and talking:** around nurses station, sitting pt in chair instead of lying in bed
- **Explore alternative behaviors**, e.g. via role play
- **Exercise/physical/music/touch therapies, m15, chaplaincy**

NB. Diary harder if pt very sick/infrequent psychotherapy

Behavioral Activation Efficacy

Severe MDD: As efficacious as antidepressant

Dimidjian J Consult Clin Psych, 2006

- **2 yr f/u: BA similar relapse rates to CT** or continuing antidepressant. BA & CT less relapse vs. stopping antidepressant Dobson J Consult Clin Psych, 2008

Behavioral Activation vs. Problem Solving Therapy: RCT depressed breast cancer patients, n=80, 8 sessions

- Moderate effect sizes in depression, anxiety, QOL (range = 0.29 – 0.49)

- No difference between BA and PST.

Hopko et al. (2011)

4b. Behavioral/relaxation therapies

Stress management for chemotherapy patients Jacobsen PB, J Clin Onc, 2002

Techniques: abdominal breathing, progressive muscle relaxation, guided imagery, coping self-statements

Depression & anxiety significantly reduced vs. control group after 2, 3 & 4 cycles of chemotherapy.

No sig. difference between clinician and self-administered.

Useful for: scans, blood draws, waiting rooms, chemotherapy, insomnia, anxiety

Relaxation and Breathing Strategies

Panic (medical emergency) & anticipatory anxiety disrupt care

1. **Educate:** *Panic is a primitive reflex, activating the fight, freeze, or flee response. When you panic in hospital it is like a false alarm because the doctors are trying to help you... Seems like a real fire, but it's just toast burning in the toaster*

2. **Hyperventilation challenge:** Teach diaphragmatic breathing/prog muscle relaxation/visualization; then measure anxiety pre/post hyperventilation challenge

This is most effective long term treatment for panic/anticipatory anxiety (better than medications)

Limitations: physical/sexual abuse (if "relaxation = letting down my guard,") requires 15-20min & follow-up x 1-2 week, needs practice; dependent on therapist's expertise

5. Cognitive-biological model for pharmaco-CT
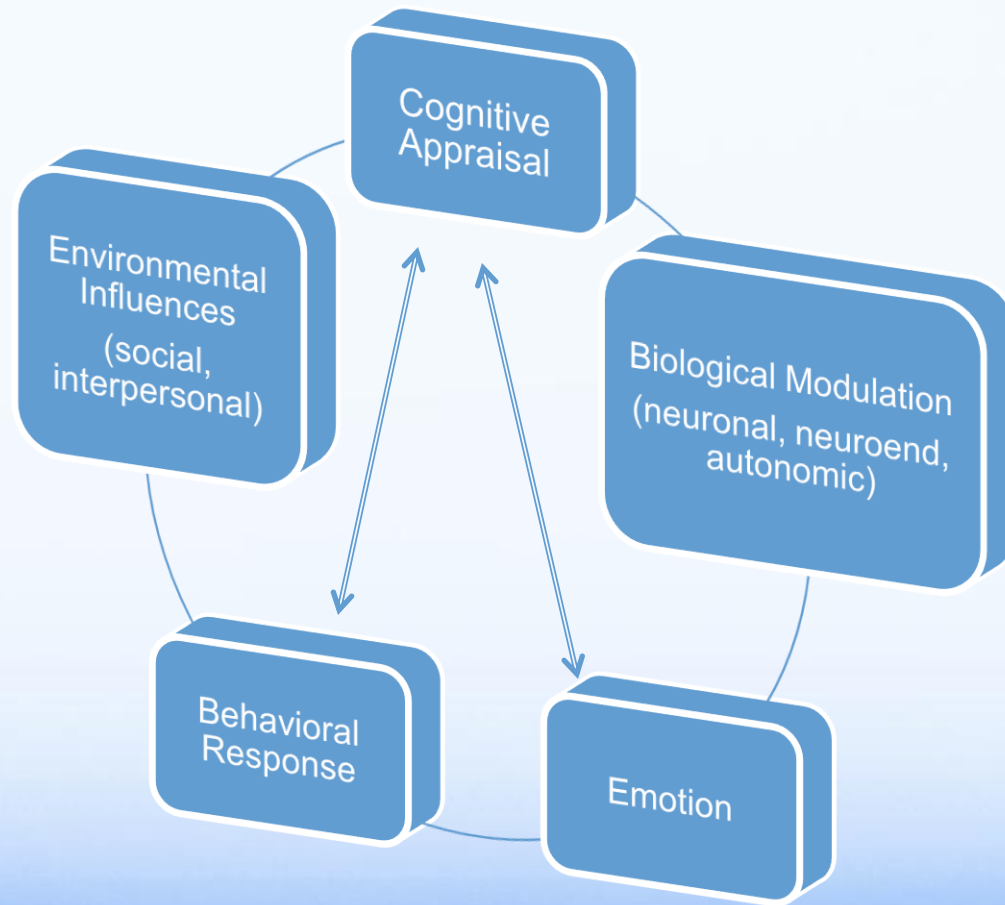
Positive effect of pharmacotherapy on CT

Improves concentration/facilitates CT

- Reduces physiological arousal, thus promote learning in CT (reducing bracing for threat)

- Can decrease distorted negative cognitions

- Hedges bets against
  - dull therapist/patient
  - delayed therapy/appointment/pending grant
  - geographical barriers to accessing CT (neutropenic isolation, rural)
  - competing cancer treatments (radiation, surgery)
  - treatment associated cog changes (chemo brain)

Pos effect of CT on pharmacotherapy:

Improves med adherence (psych & onc)

- 50% of breast cancer pts stop taking tamoxifen by 5 years, worsening mortality
- 1/3 – ½ non-adherent with antidepressants (first 3 months!)

- Helps patients understand and manage cancer

- Has biological effects & potential synergism with meds, possibly faster response

- Addresses heterogeneous triggers (cancer, work, relationships)

Subtractive effects of pharmaco-CT

- Side effects/ drug-drug Interactions

- Additional costs/time/travel

- Psychiatrist-cognitive therapist vs. Prescriber (MD, NP,) & cognitive therapist (PhD, MSW, NP)
  - integrative care model – same office is best

Roadmap for pharmaco-CT

1. **Share cog-biological conceptualization for pharmac**
   - Medications: another tool for your cancer tool box to facil better coping, potentially faster response
   - Addresses the biological component of depression/anxiety, biologically
   - Discuss advantages vs. disadvantages of meds

2. **Set goal:** e.g., to reduce your PHQ score to below 5

3. **Agenda items**: Med check; How is your CT going?

4. **Psycho-education:** medication handouts

5. **Adherence to medication** (e.g. anti-dep)

- Frame as pre/post experiment, <u>monitor</u> depression levels (PHQ), dose/side effects (e.g. sexual) and re-evaluate monthly until improved. Motivate patient to continue taking medications even when symptoms improved

6a. How to use CT to discuss dying
6b. Desire for hastened death
6c. Suicide

Hospice of Waterloo: Kid's Art Therapy Dolls

How to discuss death, dying & EOL goals of care

1. Ask directly using open-ended (Socratic) questions

What thoughts have you given to death and dying? How do you see the medical situation at the moment? Where do you see things heading? Tell me more about ...."

2. Ask about past family experiences with death and dying. *What went well? What could be improved upon? How can these experiences guide us now?*

3. Via Palliative Care Education *We will do all we can, not only to help you die peacefully, but also to live until you die."* Dame Cicely Saunders, founder hospice movement

☑ **Correct misperceptions** e.g., that discussing death results in loss of hope/giving up, the worst will come true

☑ **Empathic response**

Avoid: *Tell me what your wishes are* (assumes pt knows, answer is clear; not in collaborative spirit of Socratic questioning)

End-of-life cognitions meaningful
(meaning focused coping)

Think of a caveman whose last words are, "Don't eat the mushrooms with the yellow spots!"

Or a dad who says, "I'm proud of you, son."

CT towards the end of life: enormous impact – cognitions can resonate for generations

6b. Discussing the desire for hastened death

- Hastened death: *I wish I could go faster, doc…*

- Physician assisted suicide: *Can you help me, doc?*

- Rates of suicide in cancer patients 2x general population (Misono et al., 2008)

Desire for hastened death: explore distorted cognitions

What are your fears about death and dying?

- *I will die in pain, doctor*

- *I get claustrophobic in small spaces, and I am worried about the coffin*

- *I don't want to be a burden on my children*

- *I deserve to die…*

Treating depression <u>decreases</u> the desire for hastened death (Breitbart et al., 2010). Consider adding an antidepressant.

6c. Suicide Safety Plan

1. <u>Reasons for living</u>: motivates pt! Summarizes the Advantage-disadvantage analysis for suicide and the reasons to live and reasons to die.

2. <u>Warning signs:</u> thoughts that may lead to an increased likelihood of suicide

3. <u>Talk-backs:</u> reframes to suicidal thoughts

4. <u>Distraction techniques</u>

5. <u>Supports:</u> List of people I can talk to if suicidal thoughts emerge

6. <u>Personalized to reflect elements of the therapy</u>, handwritten by pt. (NOT a contract/form letter)

Acute Cancer CT

1. Addresses unique challenges of Acute Cancer Setting

2. Uses CT principles to arrive at a formulation of Acute Cancer CT challenges and start Rx quick (first meeting)

3. At its core: empathy, coping, reframing, prob solving, grain of truth

4. Behavioral activation for depression/relaxation & hyperventilation challenge for panic. Needs to be taught carefully.

5. Combined pharmaco-CT addresses biology pragmatically. Not currently taught but used daily

6. Dying, suicide, desire for hastened death, viewed from CT lens

7. **Dissemination challenges:** Comskil simulation methodology.? Community therapists who can take on cancer pts? Psychosomatic Medicine Fellows?

8. **Research agenda:** Prognosis, delirium, Steve Jobs syndrome, Desire for hastened death, Clinician's emotional reaction/countertransference

Thank-you, Tomer T. Levin